20” WIDE SCREEN LCD MONITOR
WITH BUILT-IN
DIGITAL VIDEO RECORDER

Instruction Manual

English Version 2.0

MODEL:
L20WD800 Series

LOREX

www.lorexcctv.com

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Thank you for purchasing the LCD / 8 Channel DVR Combo. Lorex is committed to providing our customers with a high quality, reliable security product.

This system offers a whole new level of security surveillance to the consumer market. Combining the latest word in LCD displays, Digital Video Recording and CCTV Design, the system does more than simply provide the sharpest video imaging (under any condition), large capacity video storage and unparalleled ease of system control – it's also made to provide the longest trouble free service with an array of built-in diagnostics and commercial grade CCTV component design.

To learn more about the LCD / 8 Channel DVR Combo, and to learn about our complete range of accessory products, please visit our website at:

http://www.lorexcctv.com

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK
DO NOT REMOVE COVER (OR BACK).
NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO A QUALIFIED SERVICE PERSONNEL

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**WARNING: TO PREVENT FIRE OR SHOCK HAZARD,
DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.**

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

Please visit us on the web for the most current Manuals, Quick Start Guides and Firmware. Additional Language Manuals are also available at:
http://www.lorexcctv.com

Important Safeguards

In addition to the careful attention devoted to quality standards in the manufacture process of your video product, safety is a major factor in the design of every instrument. However, safety is your responsibility too. This sheet lists important information that will help to assure your enjoyment and proper use of the video product and accessory equipment. Please read them carefully before operating and using your video product.

Installation

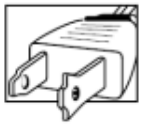
1. **Read and Follow Instructions -** All the safety and operating instructions should be read before the video product is operated. Follow all operating instructions.

2. **Retain Instructions -** The safety and operating instructions should be retained for future reference.

3. **Heed Warnings -** Comply with all warnings on the video product and in the operating instructions.

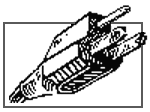
4. **Polarization -** Do not defeat the safety purpose of the polarized or grounding-type plug.

   A polarized plug has two blades with one wider than the other.

   A grounding type plug has two blades and a third grounding prong.

   The wide blade or the third prong are provided for your safety.

   If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet

5. .**Power Sources -** This video product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your location, consult your video dealer or local power company. For video products intended to operate from battery power, or other sources, refer to the operating instructions.

6. **Overloading -** Do not overload wall outlets of extension cords as this can result in the risk of fire or electric shock. Overloaded AC outlets, extension cords, frayed power cords, damaged or cracked wire insulation, and broken plugs are dangerous. They may result in a shock or fire hazard. Periodically examine the cord, and if its appearance indicates damage or deteriorated insulation, have it replaced by your service technician.

7. **Power-Cord Protection -** Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the video product.

8. **Ventilation -** Slots and openings in the case are provided for ventilation to ensure reliable operation of the video product and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the video equipment on a bed, sofa, rug, or other similar surface. This video product should never be placed near or over a radiator or heat register. This video product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the video product manufacturer's instructions have been followed.

9. **Attachments -** Do not use attachments unless recommended by the video product manufacturer as they may cause a hazard.

10. **Water and Moisture -** Do not use this video product near water. For example, near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement, near a swimming pool and the like.

    Caution: Maintain electrical safety. Powerline operated equipment or accessories connected to this unit should bear the UL listing mark of CSA certification mark on the accessory itself and should not be modified so as to defeat the safety features. This will help avoid any potential hazard from electrical shock or fire. If in doubt, contact qualified service personnel.

11. **Accessories** - Do not place this video equipment on an unstable cart, stand, tripod, or table. The video equipment may fall, causing serious damage to the video product. Use this video product only with a cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the video product. Any mounting of the product should follow the manufacturer's instructions and use a mounting accessory recommended by the manufacturer.

Service

12. **Servicing -** Do not attempt to service this video equipment yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

13. **Conditions Requiring Service** - Unplug this video product from the wall outlet and refer servicing to qualified service personnel under the following conditions.

    A. When the power supply cord or plug is damaged.

    B. If liquid has been spilled or objects have fallen into the video product.

    C. If the video product has been exposed to rain or water.

    D. If the video product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the video product to its normal operation.

    E. If the video product has been dropped or the cabinet has been damaged.

    F. When the video product exhibits a distinct change in performance. This indicates a need for service.

14. **Replacement Parts -** When replacement parts are required, have the service technician verify that the replacements used have the same safety characteristics as the original parts. Use of replacements specified by the video product manufacturer can prevent fire, electric shock or other hazards.

15. **Safety Check** - Upon completion of any service or repairs to this video product, ask the service technician to perform safety checks recommended by the manufacturer to determine that the video product is in safe operating condition.

16. **Wall or Ceiling Mounting** - The cameras provided with this system should be mounted to a wall or ceiling only as instructed in this guide, using the provided mounting brackets.

17. **Heat** - The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

Use

18. **Cleaning -** Unplug the video product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

19. **Product and Cart Combination** - Video and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the video product and car combination to overturn.

20. **Object and Liquid Entry -** Never push objects for any kind into this video product through openings as they may touch dangerous voltage points or “short-out” parts that could result in a fire or electric shock. Never spill liquid of any kind on the video product.

21. **Lightning** - For added protection for this video product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the video product due to lightning and power line surges.

NOTE

This equipment has been certified and found to comply with the limits regulated by FCC, EMC, and LVD. Therefore, it is designated to provide reasonable protection against interference and will not cause interference with other appliance usage.

However, it is imperative that the user follows this manuals guidelines to avoid improper usage which may result in damage to the unit, electrical shock and fire hazard injury

In order to improve the feature functions and quality of this product, the specifications are subject to change without notice from time to time.

FCC CLASS B NOTICE

Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception (which can be determined by turning the equipment on and off), the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio or television technician for assistance

General Precautions

1. All warnings and instructions of this manual should be followed
2. Remove the plug from the outlet before cleaning. Do not use liquid aerosol detergents. Use a water dampened cloth for cleaning
3. Do not use this unit in humid or wet places
4. Keep enough space around the unit for ventilation. Slots and openings in the storage cabinet should not be blocked
5. During lightning storms, or when the unit is not used for a long time, disconnect the power supply, antenna, and cables to protect the unit from electrical surge

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LCD/DVR COMBO FEATURES

Monitor

- 20.1” Wide screen LCD with user selectable aspect ratio (Wide 16:9, Standard 4:3)
- Professional Grade High Resolution (1680x1050) Glossy LCD panel
- VGA Input - use your LCD Display as a PC monitor
- USB picture frame feature - display digital pictures from a USB flash drive
- Entertainment Component Video input (YPbPr)
- Spot Video Out supports a connection to another monitor to display video in a different location (e.g. Public View Monitor)
- Multiple control options; front panel buttons, remote control, mouse, remote software
- Tri-lingual On Screen Display (English, Spanish, French)
- Video Tutorial for camera installation and system set up
- Screen saver for energy efficiency
- Wall mountable (VESA standard)
- Stand with cable management solution
- Environmentally friendly, recyclable packaging material

DVR

- 8 Channels with Pentaplex operation - View, Record, Playback, Back Up & Remotely Control the system simultaneously
- MPEG4 Digital Video Compression - small file sizes without compromising video quality
- Recording Frames Per Second (FPS): 240/200 (NTSC/PAL) @ 352X240
- Recording Resolution: 704x480, 704x240, 352x240(NTSC), 704x576, 704x288, 352x288(PAL)
- Custom recording for each camera
- Covert Camera - record without displaying camera image
- Continuous Recording with Motion Event logging for easy event searching
- Selectable 4 channel audio recording & Programmable motion detection
- Pre-Event Recording of a preset amount of time before motion triggers the recording to see activities leading up to an event
- Hard Drive with SATA interface, 100% duty cycle for optimal performance in the commercial video security market. Expandable up to 750GB****
- S.M.A.R.T HDD Support (Self-Monitoring Analysis and Reporting Technology): Auto Detection / Recovery to ensure the HDD is functioning properly at all times
- Supports external USB: Hard Drive, Optical Drive (DVD-RW, CDRW) and Flash Drive
- Scheduled back up to an external USB storage and Network Storage Using FTP
- Watermarking of video files to encrypt the data
- 8 Programmable Alarm Inputs, 1 Relay Alarm output
- Pan/Tilt/Zoom Camera Control: RS-485 interface
- Network Protocol: TCP/IP, DDNS and Web

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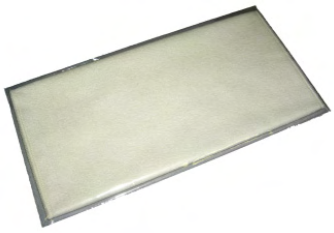
Getting Started

The system comes with the following components:

LCD MONITOR & DVR COMBO UNIT

POWER ADAPTER

MOUSE



CLEANING CLOTH

MANUALS, QUICK START GUIDE & SOFTWARE CD

REMOTE CONTROL

ETHERNET CABLE

*** HARD DRIVE SIZE AND CAMERAS VARY BY SPECIFIC MODEL. PLEASE REFER TO YOUR PACKAGE FOR CONTENT DETAILS.**

CHECK YOUR PACKAGE TO CONFIRM THAT YOU HAVE RECEIVED THE COMPLETE SYSTEM, INCLUDING ALL COMPONENTS SHOWN ABOVE.

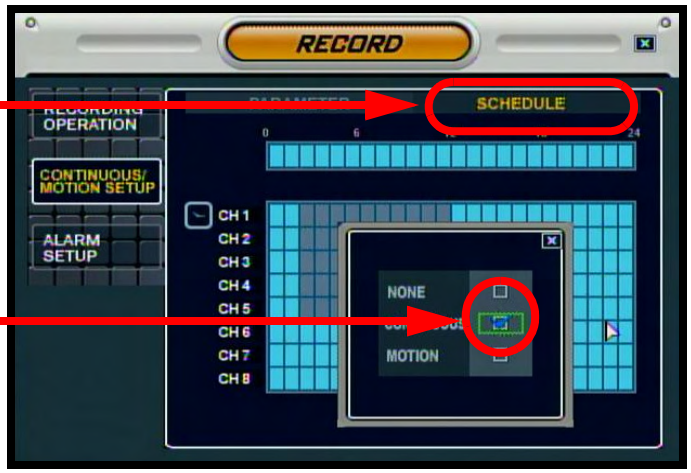
Tips & Tricks - Useful System Information

The following Tips & Tricks contain useful information about your System:

- Your default System Password is **1234**. This password may be required when entering menus, reviewing Recorded Data, Archiving, PTZ, and for Remote Access. You can change this password in the System Menu.
- Make sure to set up your **DATE & TIME** prior to starting Recording. These settings are very important to maintain system data accuracy.
- The **SPOT OUT** option on the System does **NOT** display exactly what is shown on the Monitor screen - the spot out will show individual cameras in Sequence Mode, based on Menu Settings.
- **Picture in Picture (PIP)** behaves in different ways, depending on MODE:
  - When in VGA Mode, the PIP will display the DVR Screen.
  - When in Component Mode, the PIP will display the DVR Screen.
  - When in Picture Frame Mode, the PIP will display the DVR Screen.
  - A PIP Screen will NOT be displayed when the Installation Guide Video is playing
  - When in DVR Mode, the REVERSE-PIP will display the Component, Video or VGA Input. This function could be used to watch a Movie or view your PC Screen while still monitoring the Live Video display.
- When setting up the System for Remote Access, it is very important to turn off the System, **CONNECT THE ETHERNET CABLE** to the system and to the Router, and then turn the System back on again. If the cable is connected while the System is on, it will not properly get Network Information from the Router.
- If you are experiencing difficulties accessing your System remotely, press the INFO Button on the Remote Control -or- the Enter Button on the Front Panel to display the System Information. The **IP ADDRESS SHOULD NOT BE 127.0.0.1** - if it is, your system network settings are not correct. Please see the Network section of this manual for details.
- To listen to **AUDIO IN PLAYBACK MODE**, make sure to maximize the selected channel to full screen. Audio will NOT play when playback is in split screen mode.
- When **EDITING SYSTEM SETTINGS**, it is important to note the color of your Highlight Box. When the highlight box is in GREEN, it indicates that the option is available for editing. When the highlight box is in ORANGE, it indicates that the option is in active editing mode, and the setting can be changed.

Orange Highlight - Indicates that the option is in active editing mode.

Green Highlight - Indicates that the option is available for editing. Once the option is highlighted, press the ENTER key to edit the option (highlights changes to Orange).



Basic System Setup

The following connections are recommended prior to loading the System for the first time.

1

Connect Cameras to the Monitor:

Please see the Camera Installation Section of this manual for details.

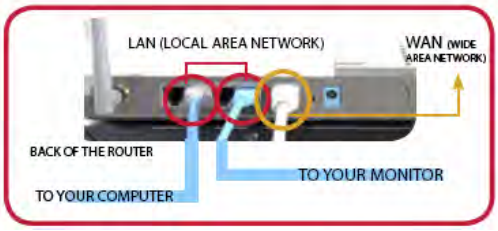
TIP: Test the cameras prior to selecting a permanent mounting location by temporarily connecting the Cameras and Cables to your System.

2

Connect Ethernet Cable:

Connect one end of the Ethernet cable (for remote monitoring) to one of the router's (not included) LAN ports and the other end to Monitor's Network Port located at the back of the Monitor.

See picture below showing a generic LAN/WAN connection.



3

Connect the Mouse:

Connect a USB mouse to one of the USB ports located at the side of the monitor.

4

Connect Power Cable:

Connect one end of the Power adaptor to the monitor, the other end to an electrical outlet.

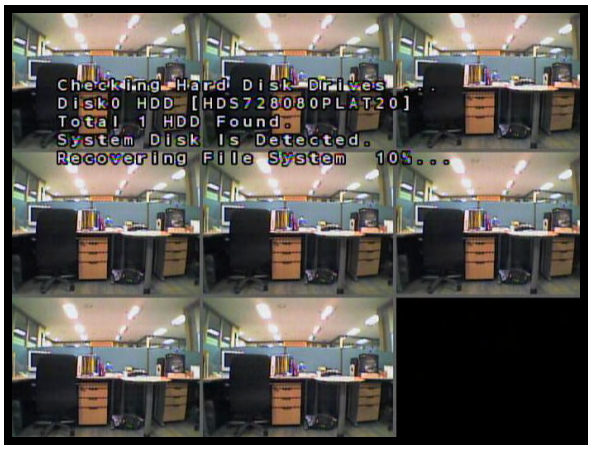
Your system will perform the following System Check:

1. Blue LED at the front flashes four times
2. You will hear 2 beeps
3. Power LED at the front turns RED

System Startup / Shutdown

System Loading Sequence

- Press the POWER button located on the front panel of the System to start the unit, or press the Power Button on the Remote Control.
- The System will perform a Hard Drive check


Checking Hard Disk Drives ...
Disk0 HDD [HDS728080PLAT20]
Total 1 HDD Found.
System Disk Is Detected.
Recovering File System 10%...

The unit will initially load to a split screen view, displaying all channels (if available). Empty channels will be displayed in Blue.

NOTE: If a new **HARD DRIVE** is detected, the system will prompt you to FORMAT the drive. If you do not choose to format the HARD DRIVE, the drive will not be detected by the system.

If you choose to FORMAT a drive in this way, the drive will no longer be readable by a regular PC without using the **HARD DRIVE VIEWER** software included on the CD provided with this unit. Please see the Appendices for details on Hard Drive format.

Monitor Display Shutoff

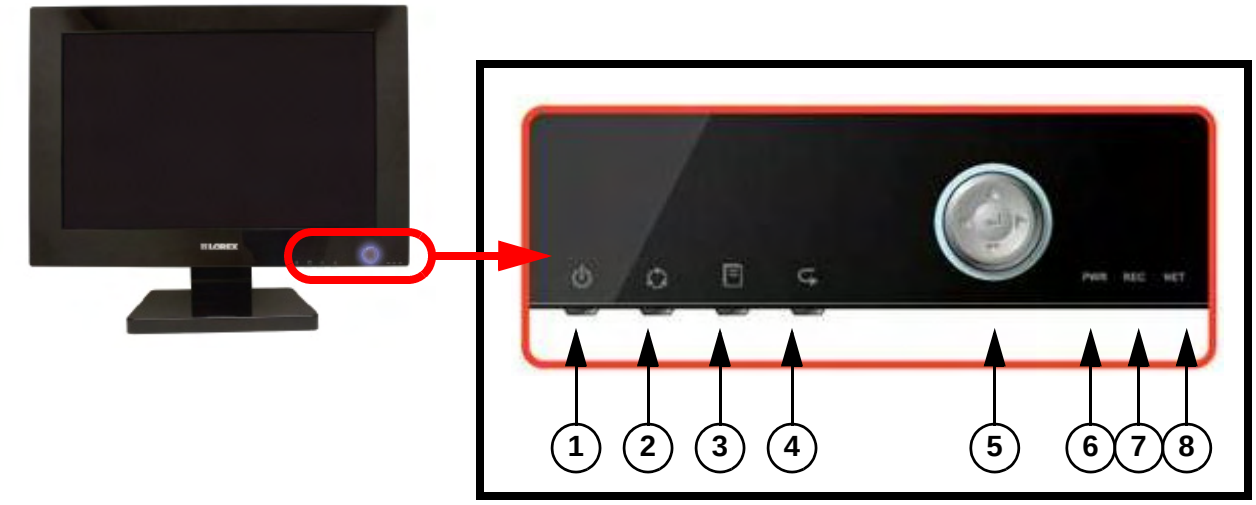
- Press the Power Button on the front panel or remote control for one second to turn off the monitor only.
- The System will continue to record while the monitor is off.
- The LED indicators on the front of the System will remain ON.
- The monitor shutoff can be automatically set using the Screen Saver settings in the System Menu.

System Shutdown

- Press and hold the Power Button on the front panel or remote control for three seconds to turn off the System, or select Shutdown from the Mouse Menu. Enter the Admin Password (1234 by default).
- Only the ADMIN can turn the unit ON/OFF.
- The System will NOT continue to record while the unit is off.
- The LED indicators on the front of the System will be OFF.

System Shutdown Prompt

Front Panel



1. System Power Button	2. Multi-Function Modes	3. Setup Menu	4. Return Button
5. Navigation & Enter	6. Power LED	6. Recording LED	8. Network Connection LED

1. **SYSTEM POWER BUTTON** - Press the System Power button to turn the Monitor display ON/OFF. Press and hold the button to turn the DVR ON/OFF.

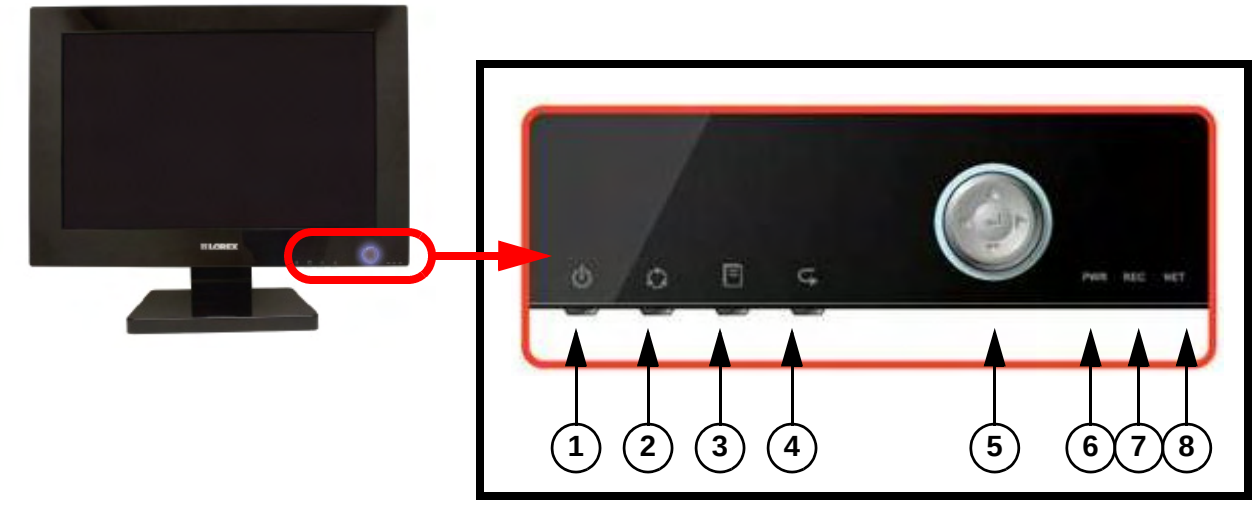
2. **MULTI-FUNCTION MENU MODES** - Press the Multi-Function Menu button to switch between monitor modes:

   - **DVR Mode** - Displays the DVR with live camera view.
   - **VGA Mode** - Displays the device connected to the VGA Port on the monitor (i.e. Computer).
   - **Component Mode** - Displays the device connected to the component green, blue, and red inputs (Y/Pb/Pr) in high resolution (i.e. DVD Player).
   - **Picture Frame Mode** - Displays jpg images from a USB Thumbstick on the monitor as still images. Images cannot exceed 1600x1200 pixels.

   - **Installation Guide** - Displays the system installation video.

3. **SETUP MENU** - Press the Setup Button to display the System Menu (in DVR Mode), the Monitor Configuration Setup Menu (in VGA or Component Mode) or the Picture Frame Setup Menu (in Picture Frame mode).

Front Panel



1. System Power Button	2. Multi-Function Modes	3. Setup Menu	4. Return Button
5. Navigation & Enter	6. Power LED	6. Recording LED	8. Network Connection LED

4. **RETURN BUTTON** - Exits a menu and returns the screen to the default view for the selected Mode.

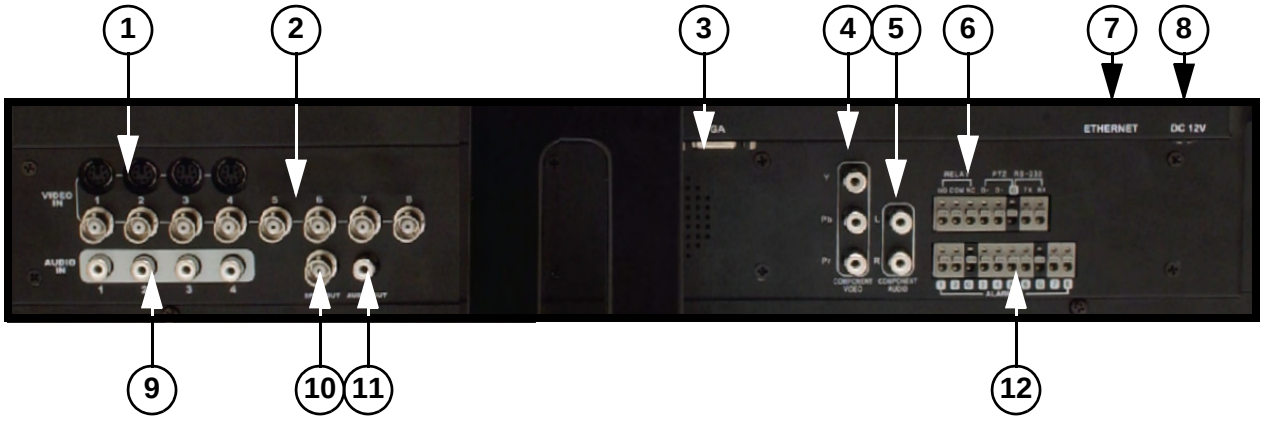
5. **NAVIGATION & ENTER CONTROLS** - Use the Navigation controls to move Up, Down, Left and Right in menus, and press Enter to select options.

6. **POWER LED** - Indicates that the system is ON/OFF (RED LED).

7. **REC LED** - Indicates that the system is currently recording (when the RED LED is ON).

8. **NET LED** - Indicates that a remote connection has been made to the unit (over the Network) when the RED LED is ON.

Rear Panel



1. DIN Video Inputs	2. BNC Video Inputs	3. VGA IN Port	4. Component Video IN
5. Component Audio IN	6. Relay / PTZ / RS-232	7. Ethernet	8. Power (DC 12V)
9. Audio Inputs	10. Spot Out	11. Audio Out	12. Alarm Block

1. **6 PIN DIN VIDEO INPUTS** - Channel 1-4 Camera inputs (for cameras with 6 Pin DIN connections).

   Cameras with 6 Pin DIN connections draw power from the System - additional power adapters are not needed.

6 PIN DIN

2. **BNC VIDEO INPUTS** - Channel 1-8 camera inputs (used to connect Cameras with BNC connection type). Cameras with BNC connections require an additional power adaptor.

3. **VGA INPUT** - Connect a PC (or other devices with a VGA Output) to the System. The System will perform as a Computer Monitor (when in VGA Mode).

4. **COMPONENT VIDEO IN** - Connect a DVD Player, Set Top Box or Satellite Receiver to the component Video Inputs (Y/Pb/Pr).

5. **COMPONENT AUDIO IN** - Connect a DVD Player, Set Top Box or Satellite Receiver to the component Audio Inputs (Audio in Left/Right Channels). The Component (Composite) Output must be turned ON on most DVD Players before connection to the System.

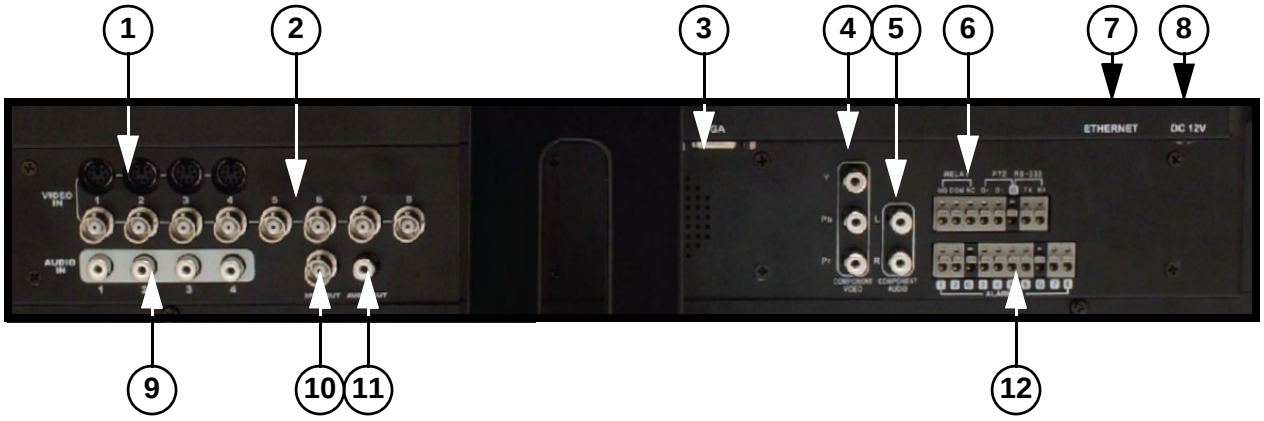
6. **RELAY / PTZ / RS-232 BLOCK** - These terminals are used to send a signal to a secondary device or control PTZ (Pan/Tilt/Zoom) type cameras.

7. **ETHERNET PORT** - Connects the monitor to a router for connection to the internet. Refer to Appendix #3 for Remote Connection setup.

8. **DC INPUT** - Connect the AC power using the power cord provided with the unit from the monitor to an electrical outlet

9. **RCA AUDIO INPUTS** - Channel 1-4 Audio inputs (for BNC type cameras with standard RCA Audio output)

Rear Panel



1. DIN Video Inputs	2. BNC Video Inputs	3. VGA IN Port	4. Component Video IN
5. Component Audio IN	6. Relay / PTZ / RS-232	7. Ethernet	8. Power (DC 12V)
9. Audio Inputs	10. Spot Out	11. Audio Out	12. Alarm Block

10. **SPOT OUT** - Video Output port to connect the unit to a Monitor or TV. This feature is used for situations in which you want to have the system in a back room while still displaying images to the public eye, for theft deterrence or advertising purposes.

11. **AUDIO OUT** - Audio Output port to connect the unit to a secondary audio device (i.e. Speakers).

12. **ALARM FUNCTION TERMINALS (INPUT/OUTPUT)** - These terminals are used to connect external alarm devices such as a motion sensor, door/alarm sensor, or time lapse VCR for Alarm Recording. Refer to the appendices for Alarm Block Configuration.

Side Panel - USB Ports

The USB Ports provide a connection point for a USB PC Mouse, USB Flash Drives (thumbsticks) and USB Hard Drives.

- Use a Mouse for navigating in DVR and Picture Frame modes.
- Connect a USB Thumbstick or USB Hard Drive or Optical Drive (CD-RW/DVD-RW) for system Archive Backup.
- Add jpg pictures to a USB Thumbstick to use the Monitor as a Picture Frame display.

Camera Installation

Before you install the camera, carefully plan where and how you will position the camera, and where you will route the cable that connects the camera to the System.

Installation Warnings:

- Select a location for the camera that provides a clear view of the area you want to monitor, which is free from dust, and is not in line-of-sight to a strong light source or direct sunlight.
- Plan the cables' route so that it is not close to power or telephone lines, transformers, microwave ovens or other electrical equipment that could interfere with the system.
- Select a location for the camera that has an ambient temperature between 14°F~113°F (-10°C~45°C)
- If you plan to install the camera in a location that has conditions not recommended in this manual, consult with a professional installer and consider use of a separate camera cover or housing
- Before starting permanent installation, have another person hold the camera for you while you verify its performance by observing the image on the monitor.

Camera Stand Installation:

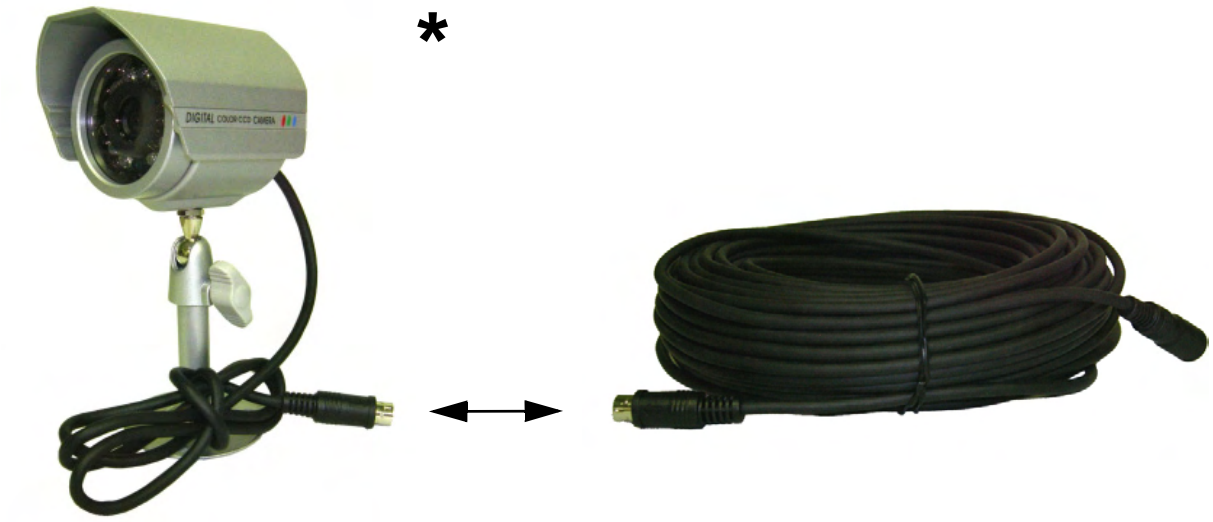
1. Attach the pedestal to the ceiling, wall or other surface by the base using the provided screws.
2. The mounting bracket must be attached to a structural device such as a wall stud or ceiling rafter using the supplied screws.
3. Attach the camera to the pedestal. Adjust the angle of the camera, and tighten the thumbscrew to set the position

NOTE: The Camera can be attached to the stand using the screw point on the top or the bottom (to maintain proper camera alignment). This prevents the image from becoming inverted.

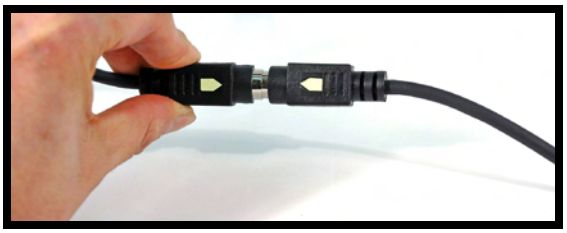
* Camera model may not be exactly as shown.

Connecting DIN Cameras

1. Connect the female end of the supplied DIN extension cable to the camera.

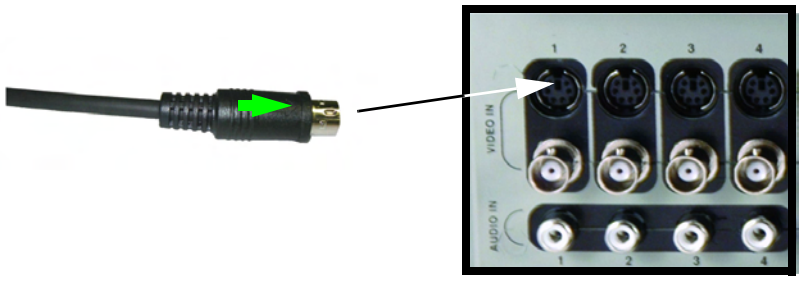


NOTE: Confirm that the arrows on the DIN Camera Cable and the DIN Extension cable are pointed together when connecting the cable. If the pins in the DIN Cable are bent, the Camera will NOT function.



2. Connect the male end of the supplied DIN extension cable to an open DIN camera input on the back of the System. Continue connecting additional DIN cameras.

NOTE: The arrow on the DIN Camera should be facing up when connecting the DIN Extension Cable to the System.



* Camera Model may not be exactly as shown.

Connecting BNC Cameras

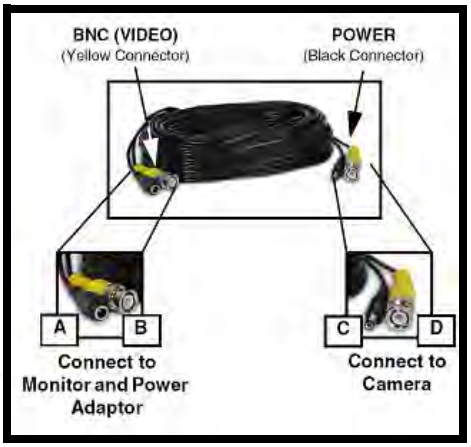
1. Connect the Extension cable to the Camera and System:

   A. Connect the Barrel Power connector to a power adaptor.

   B. Connect the BNC connector to an available BNC Port of the System.

   C. Connect the Male Power connector to the Camera.

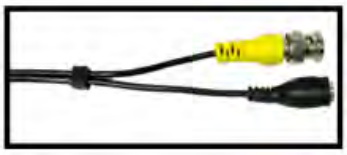
   D. Connect the BNC connector to the Camera.



2. Connect the Power Adaptor to a wall outlet.

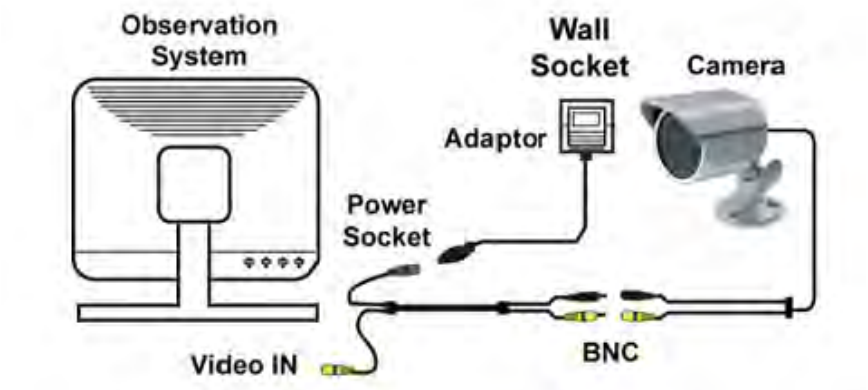
IMPORTANT NOTE: The ends of the extension cable are NOT the same - one end has a Male power port, and the other has a Female power port. Before permanently running the Camera Extension Cable, make sure that the cable has been oriented between the Camera and the unit correctly.

Male Power Port - The male power port end of the Extension cable connects to the Camera.



Female Power Port - The female power port end of the Extension cable connects to the Power Adaptor.

Camera Connection Diagram



Multi-Function Display - Monitor Modes

This system contains a multi-function display, which allows the system to function in several modes:

- **Mode 1: DVR Mode** - Displays the DVR with live camera view.
- **Mode 2: VGA Mode** - Displays the device connected to the VGA Port on the monitor (i.e. Computer).
- **Mode 3: Component Mode** - Displays the device connected to the component green, blue, and red inputs (Y/Pb/Pr) in high resolution (i.e. DVD Player, Set Top Box or Satellite Receiver).
- **Mode 4: Picture Frame Mode** - Displays jpg images from a USB Thumbstick on the monitor as still images.
- **Mode 5: Installation Guide** - Displays the system installation video.

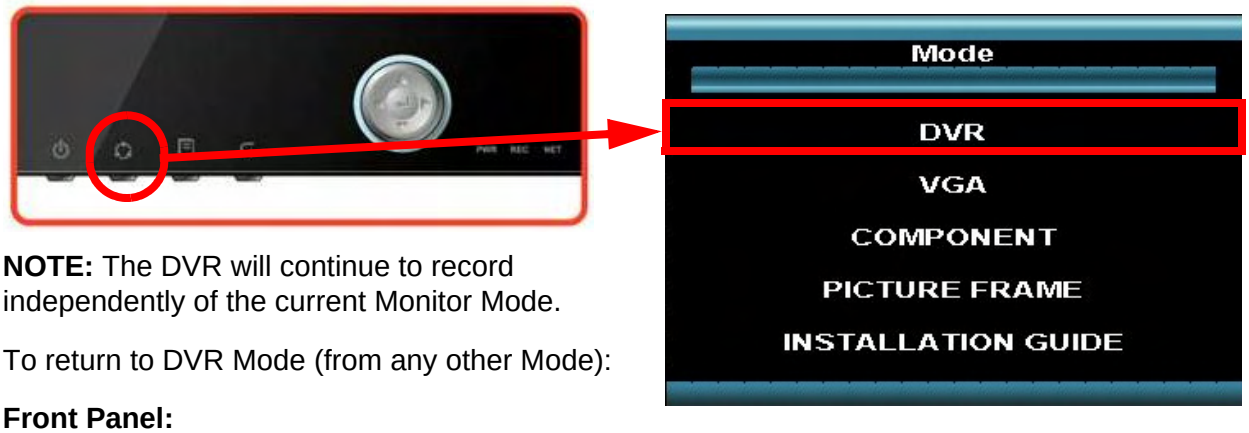
For more information on the use and settings for a specific mode, please refer to the associated section in this manual for details.

NOTE: The System will continue to record while in other modes. This provides an advanced level of Covert Surveillance

Digital Video Recorder (DVR) Mode (Mode 1)

DVR Mode is the primary mode for the System, and is the displayed when the system is powered on. In DVR Mode, the system performs the following functions:

- View and Record live video channels in Single, Quad, Multi-Display or Sequence Mode.
- Customize the recording on up to 8 camera channels in continuous, motion or alarm recording modes.
- Archive data to USB Thumbstick, USB Hard Drive, CDRW/DVD-RW or Network Storage through FTP.
- Search through Previously Recorded Events
- Customize the Display, Cameras and System to best suit your security needs through the user friendly System Menu GUI (Graphical User Interface).



NOTE: The DVR will continue to record independently of the current Monitor Mode.

To return to DVR Mode (from any other Mode):

Front Panel:

1. Press the Multi-Function Mode Button on the Front Panel.
2. Use the Up and Down arrows on the Navigation Control to select DVR.
3. Press the Enter button on the Navigation Control to switch to DVR Mode.

Remote:

1. Press the DVR Button on the Remote Control -or-
2. Press the Mode button on the Remote Control. Use the arrows to select DVR, and press the Enter button.

DVR Mode - Remote Control Usage

1. **MODE:** Press the Mode Button to display the Multi-Function Mode Menu.

2. **POWER**: Press the Power Button to turn off the Monitor Display. Press and hold the button for 3 seconds to shut down the entire system.

3. **DVR**: Change to DVR Mode.

4. **VGA:** Change to VGA Mode.

5. **RETURN**: Exits from a System Menu.

6. **NAVIGATION/PLAYBACK:** Press the Navigation Controls to move Up, Down, Left or Right in System and Mode menus. Use the Playback controls to Pause, Play, Reverse or Fast-forward the Playback in DVR Mode.

7. **INFO:** Displays the System Information in DVR Mode.

8. **SEARCH BUTTON:** Displays the Video Playback Search menu.

9. **NUMBER KEYPAD**: Use to switch between Cameras in live view mode.

10. **VOL +/-**: Increase or Decrease the volume of the camera currently broadcasting live audio.

11. **DVR SETUP**: Displays the DVR Setup Menu.

12. **REMOTE ID:** Changes the ID for the remote control to match the System ID (if changed). Use the Remote ID when using one remote to control multiple systems). To set the Remote to default, press and hold the Remote ID button for 5 seconds, then select number 1. Press the Enter and Return buttons.

13. **PICTURE FRAME**: Change to Picture Frame Mode.

14. **COMPONENT:** Change to Component Mode.

15. **ENTER BUTTON**: Press the Enter Button to select an option in the System Menu or Multi-Function Menu. Also displays PIP when in camera viewing mode.

16. **DISPLAY**: Switches the display to single, quad and multi-display views.

17. **PTZ**: Switches to PTZ Mode.

18. **KEYLOCK**: Locks all keys (except the Mode button).

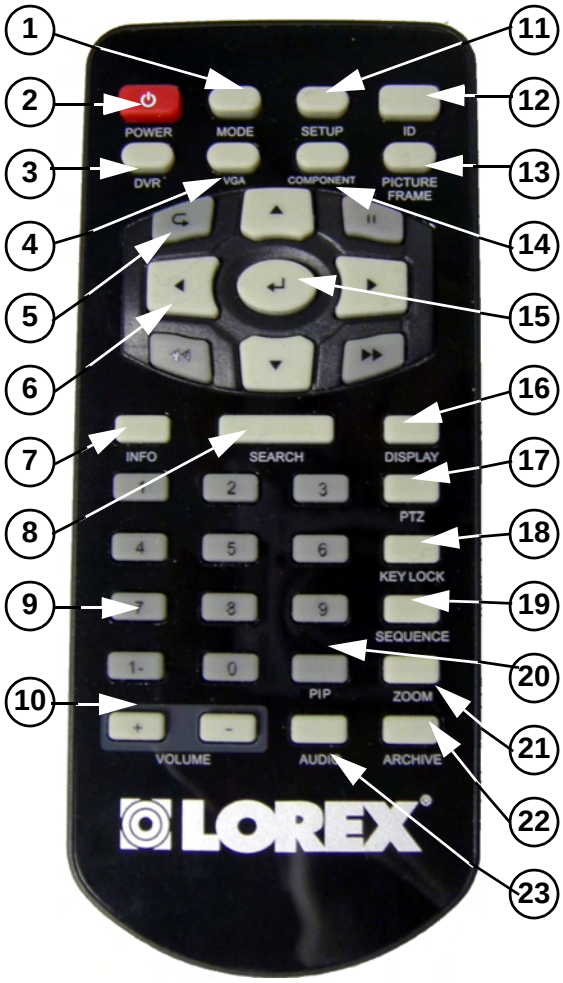
19. **SEQUENCE**: Changes the Monitor Display to Sequence through channels (based on menu settings).

20. **PIP**: Displays the Component Input in the PIP Screen in the lower right corner.

21. **ZOOM**: Displays one channel with Digital Zoom.

22. **ARCHIVE**: Displays the Archive menu.

23**. AUDIO CHANNEL SELECT**: Switches between live audio channels (CH1~4 only). Press Audio and select Channel 1~4.



1. Mode	13. Picture Frame Mode
2. Power	14. Component Mode
3. DVR Mode	15. Enter Button
4.VGA Mode	16. Display Mode
5. Return Button	17. PTZ Mode
6. Navigation Controls	18. Keylock
7. Information	19. Sequence Mode
8. Search Button	20. PIP Mode
9. Number Keypad	21. Zoom Mode
10. Volume +/-	22. Archive
11. DVR Setup	23. Audio Channel Select
12. Remote Control ID	

Front Panel Navigation Controls

This System has been designed to use the Mouse or Remote Control as the primary modes of navigation and configuration for the system. The Front Panel buttons can also be used to access the menus and configure the system.

- Navigation Controls - Move Up/Down/Left/Right in menus.
- Press the Up or Down arrow keys (when in the default display mode) to load the On-Screen Display Menu (see next page for details).
- Enter Button - Press this button to select and change the values in a menu option.

Mouse Control

This System has been designed to use the Mouse or Remote Control as the primary modes of navigation and configuration for the system.

Connect a mouse to one of the USB ports located on the side of the unit before powering on the system.

Mouse Controls

The mouse behaves in the same way as a PC mouse - use the Left and Right Buttons to open menus and change options:

LEFT BUTTON -

- Single Click:
  - Select options in Menu, Recording and Search Mode.
  - Change settings, select dates and perform other options
  - Click to use the Controls in PTZ Mode
- Double Click:
  - Double click on a Channel in QUAD or other views to view the single camera in full screen.

RIGHT BUTTON -

- Single Click:
  - Opens the On-Screen Display Menu.

On-Screen Display Menu

The On-Screen Display Menu is accessed by either:

- Pressing the Up or Down Arrows on the Front Panel
- Right Clicking the Mouse

The Menu options include:

1. **CHANNELS:** Select a Channel Number (1~8) to display a camera in Full Screen Mode.

2. **SETUP**: Displays the System Setup Menu. Please refer to the System Setup section for detailed configuration.

3. **SEARCH**: Allows you to locate previously recorded video by Date and Time, or by Event Type.

4. **PTZ**: Displays the PTZ Control Screen. The PTZ / Focus Menus will only work with PTZ type cameras (not included)

5. **DISPLAY**: Changes the current display mode to Single, Quad, 6-Channel Split, 8-Channel Split or 9-Channel Split screen views.

6. **ARCHIVE**: The Archive feature copies data from the Hard Drive to a USB backup media such as a Memory Stick or USB Hard Drive. See the Archive Menu Section for details.

7. **SEQUENCE**: Selecting the Sequence option switches the live camera view to the Sequence set in the System Menu.

8. **ZOOM**: Displays one channel with Digital Zoom.

9. **KEY LOCK**: Locks all Front Panel and Remote Control buttons (except the Mode change buttons). The password is required to unlock the keys. The System can still enter any other mode while the keys are locked (VGA, Component, Picture Frame or Installation Video modes).

10. **VOLUME**: Adjusts the volume of the System.

11. **PIP**: Select the PIP Button to display the VGA or Component mode in a PIP window. This function could be used to watch a Movie while still monitoring the Live Video display.

12. **SHUTDOWN**: Select the Shutdown option to turn off the System.

System Display

Camera Title: The title for the camera is displayed in the upper left corner of the channel window, to a maximum of 11 characters. To change the name, use the System Setup options.

Recording Status:

: Record

: Pre Record

C: Continuous

M: Motion

A: Alarm

Date & Time: Displays the current Date and Time for the System.

NOTE: It is very important to set the Date and Time prior to recording. If the date and time are changed after recording has started, old data may be overwritten and lost.

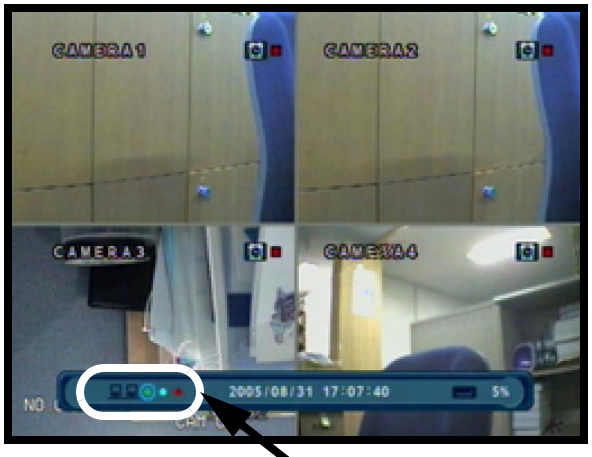
Hard Drive Recording Settings: Displays the current Recording Type:

- If displaying a % under 100%, the drive is not yet full.
- If displaying 100%, the drive is full, and overwrite is OFF.
- If displaying OW, the drive may not be full, however the system is set to Overwrite (starting from the oldest data) once the drive capacity is reached.

Network Connectivity Indicators

The Network Indicators appear when a remote connection is made to the unit via the Remote Agent software, or through the Internet Explorer Web Client:

- Green: Indicates that the network connection is stable.
- Blue: Indicates that the network connection is experiencing difficulties.
- Red: Indicates that the network connection is not strong.



Network Indicators

Camera Display Modes

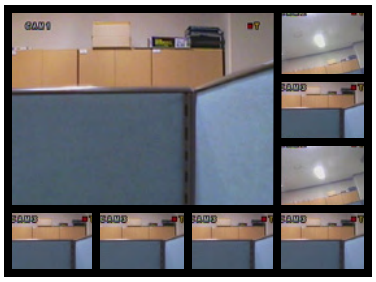
Cameras can be displayed in several different modes by pressing the Display Button on the Remote Control or Mouse Menu.

A Display Selection window will appear onscreen. Select from the available display types:

Single Channel

Quad (4) Channel

6 Channel Split View



8 Channel Split View

8 Channel (Grid)

Zoom Mode

- Displays the Camera in ZOOM Mode.
- Use the Arrow keys to adjust the Zoom location.
- Press the Return key to exit ZOOM Mode.

PIP Mode (Reverse PIP)

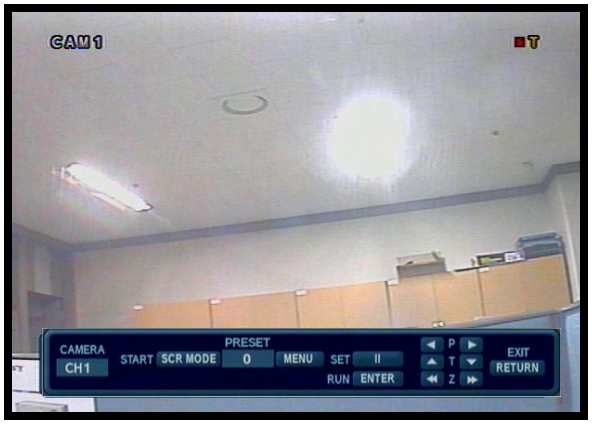
When using the PIP function when viewing in DVR MODE, it is referred to as 'Reverse PIP' (as normal PIP means displaying the DVR Screen as a PIP on any other mode).

Select the PIP Button to display the VGA or Component mode in a PIP window. This function could be used to watch a Movie will still monitoring the Live Video display.

PTZ (Pan/Tilt/Zoom) & Focus Controls

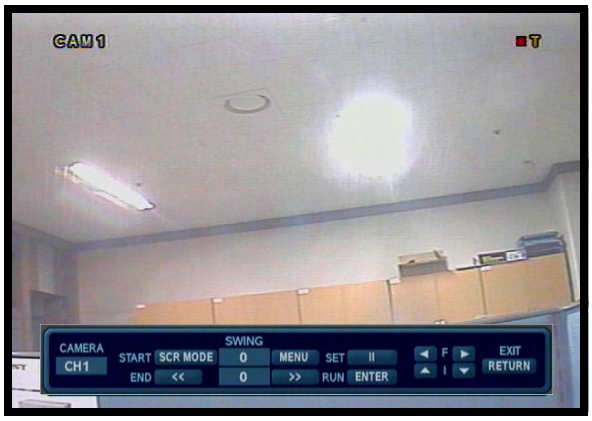
The PTZ / Focus Menus will only work with PTZ type cameras (not included):

- Press the PTZ Button on the Remote Control or Mouse Menu to access the PTZ Control Screen:
- The onscreen icons represent buttons on the front panel and remote control (up/down/left/right). The Camera can be adjusted using these buttons
- Press the Return Button to exit PTZ Mode.



PTZ Control Screen

- Press the PTZ Button a second time to access the Focus Control Screen:
- The onscreen icons represent buttons on the front panel and remote control (up/down/left/right). The Camera can be adjusted using these buttons
  - F: Indicates FOCUS
  - I: Indicates IRIS
- Press the Return Button to exit PTZ Mode.



Focus Control Screen

NOTE: Make sure that the PTZ Settings are configured in the Menu before attempting to use any of the PTZ Menu Functionality.

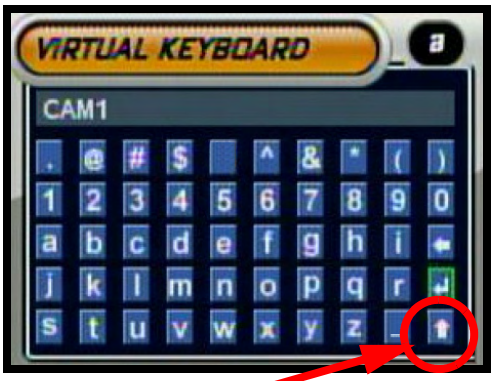
Menu Navigation Controls & Tips

YOUR SYSTEM PASSWORD IS: **1234**

Virtual Keyboard Control

The Virtual Keyboard control becomes available when keyboard input is needed for entering information such as Names, Network Information, etc.

- Includes a~z, A~Z, 0~9 and Symbols.@#$%^&*()
- Navigate using the arrow keys on the Front Panel or Remote Control, or by clicking with the Mouse.
- Select the ENTER button once the Alpha/Numeric entry is completed.



Click to View Uppercase and Symbols

Active Option Indicator

Orange Highlight - Indicates that the option is in active editing mode.

Green Highlight - Indicates that the option is available for editing. Once the option is highlighted, press the ENTER key to edit the option (highlights changes to Orange).

NOTE: Once changes have been made, select the APPLY button at the bottom of the screen, and press the ENTER button on the front panel or remote control. Changes will be saved at this time - exiting the menu without applying the changes will result in the changes being lost.

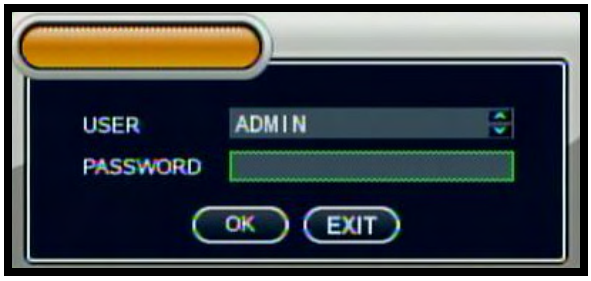
Volume Adjustment

Displays the volume level of the Camera currently set to Live Audio

The Camera Volume can be controlled using the Volume + / - keys.

System Setup Controls

• Enter the **MENU** screen by pressing the **SETUP** button on the Remote Control, by pressing the **SYSTEM MENU** button on the Front Panel or by selecting **SETUP** from the Mouse Menu. Enter the password (if required). The default password is 1234

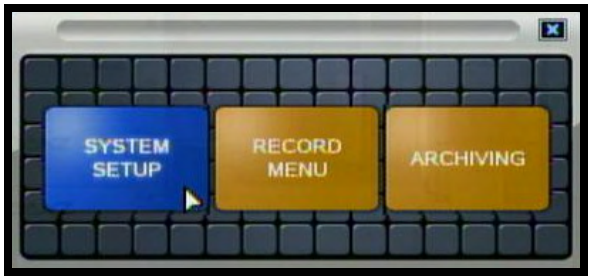


• Select the **SYSTEM SETUP** option to configure the menu options.

• Scroll through the 6 options by pressing the **UP**, **DOWN**, **LEFT and RIGHT** buttons on the Front Panel or Remote Control, or clicking with the Mouse

• To enter a sub-menu, navigate to the option and press the **ENTER** button. To exit a **SUBMENU**, press the **RETURN** button.

• To exit the **MAIN MENU**, press the **RETURN** button.



Main Menu

DISPLAY - Setup of display options.
CAMERA - Setup for individual Cameras.
SOUND - Sound settings for the System.
SYSTEM - System and Network settings.
EVENT/SENSOR - Alarm and Event setup.
DISK MANAGEMENT - Hard drive options.

↑↓←→: Scroll UP/DOWN/LEFT/RIGHT within a menu option
ENTER: Press this button to select and change the values in a menu option
RETURN: Complete modifications of a menu option; exit a menu

Display Menu

The Display Menu controls:

OSD - Onscreen display settings control the camera titles, event indicators, and general screen settings.

MONITOR - Display settings for Alarm and Events

SEQUENCE - Controls the settings for the display of video images in Sequence Mode

SPOT-OUT - Sends camera video to a secondary monitor (by individual camera based on the settings) through the SPOT-OUT Port.

SCREENSAVER - Configuration for the system screensaver

OSD (Onscreen Display)

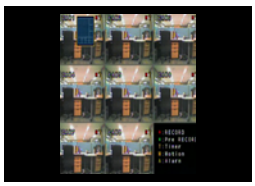
OSD (Onscreen Display)

- **Status Bar** - Turns the status bar ON/OFF. The status bar displays:
  - Recording State (Recording: Red, Pre-recording: Green)
  - Network Indicators
  - Time and Date
  - % HDD Free
  - Refer to Recording Settings on page 50).
- **Camera Title** - Turns the display of the Camera Titles ON/OFF.
- **Event Icon** - Turns the Event Icon display ON/OFF.
- **Border** - Turns the channel separation border ON/OFF when the display is in Quad Display Mode.
- **Border Color** - Sets the Border Color: White, Blue, Red, Yellow, Green or Gray.
- **Menu Transparency** - Sets the Menu Transparency between 0 (no transparency, menu is very dark) to 100 (full transparency, menu is very light).
- **Motion Sensor Display** - Turns the display of the Motion Sensor to:
  - Active: Display motion sensor of motion detection area.
  - Inactive: Display motion sensor except motion detection area.
  - Off: No display of motion sensor.
- **Motion Sensor Color** - Sets the motion sensor color. When Motion is detected on a channel, the moving parts of the image will be highlighted with colored squares (i.e. Blue Squares). Colors include Blue, Green, Red or Yellow.
- **Motion Transparency** - Setup motion transparency. This sets the transparency of the Motion Sensor blocks from 0~3.
- **Language** - Change the language for the On Screen Display and DVR Menu selections to English, French or Spanish.

MONITOR

- **Sequence Dwell** - Sets the cycle time when the system is in Sequence Mode (between 1~60 seconds).
- **Spot-Out Dwell** -The length of time to display a camera in Spot-out mode.
- **De-Interlace Mode** - Removes the screen spread when set to ON.
- **Alarm Pop-Up Mode** - Set to ON/OFF. Switches the screen display to the detected channel when an Alarm is activated.
- **Alarm Pop-Up Dwell** - Determines the length of time that a channel is displayed when an Alarm is detected (between 1~60 seconds).
- **Motion Pop-Up Mode** - Set to ON/OFF. Switches the screen display to any channel when Motion is detected.
- **Motion Pop-Up Dwell** - Determines the length of time that a channel is displayed when Motion is detected (between 1~60 seconds).
- **Aspect Ratio** - Sets the Aspect Ratio for the display to 4:3 (Letterbox) or 16:9 (Full Screen)

16:9 Ratio



4:3 Ratio

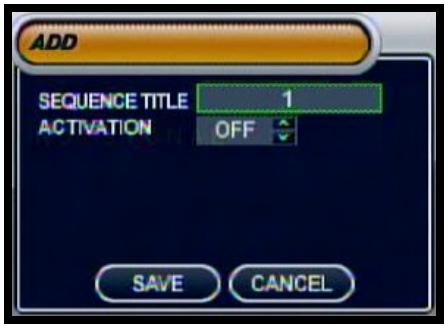
SEQUENCE

Sets the Sequence Mode for the display of available channels. The Sequence Settings for camera views can only be changed using the Mouse or Remote Control.

- **Activation** - Turns the Sequence ON/ OFF.

NOTE: Up to 16 different Sequence Mode settings can be configured, however only ONE can be active at a time.

- **List** - Displays the Sequence Title



- **ADD Button** - Select the ADD button to create a New Sequence:
  - **Sequence Title** - Enter a title for the New Sequence
  - **Activation** - Turn the Sequence ON/ OFF (only one sequence can be active at a time).
  - **CANCEL Button** - Cancels the addition of the New Sequence.
  - **SAVE Button** - Saves the New Sequence, and moves to the New Sequence Configuration screen:

Once the New Sequence has been created, the Sequence Setup Mode screens appear. These screens will set the sequence patterns (see the following for details).

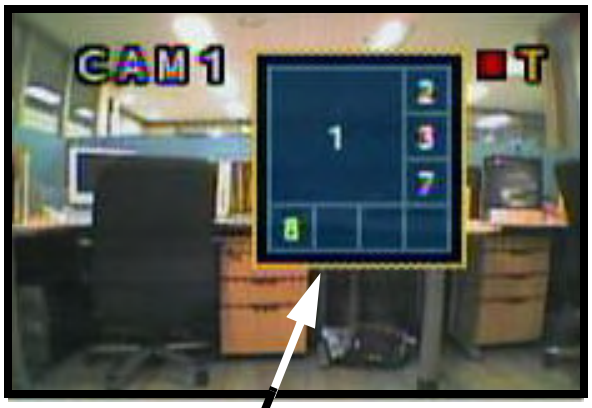
Modifying a Sequence

- An existing Sequence can be Modified by selecting it from the list, and pressing ENTER. Once changes have been made, select the MODIFY button to configure the views, then press the SAVE Button.

SEQUENCE SETUP - REMOTE

1. Press the ENTER button on the Remote. The Highlight will change to YELLOW - Setup Mode is now active.

2. Select the Display Mode by pressing the Left and Right buttons (5 different Display Options - Single, Quad, 6-split, 8-split & 8-quad).



3. Press the Number Keys to Select channels to be displayed in Sequence (all squares must have an assigned number). Press ENTER when complete.

4. Repeat for the next Display Modes (up to 16 additions).

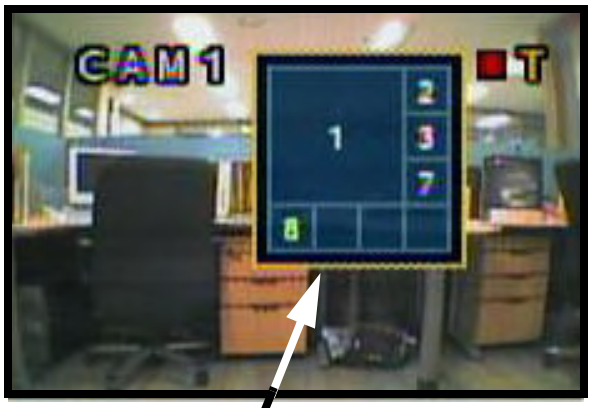
5. Press the RETURN button when complete. and select SAVE & EXIT.

6. Press the SEQUENCE button on the Remote or Mouse Menu to switch to Sequence display.

SEQUENCE SETUP - MOUSE

1. Double Left Click on the Green Highlighted box. The Highlight will change to YELLOW - Setup Mode is now active.

2. Select the Display Mode by single left clicking to switch (5 different Display Options - Single, Quad, 6-split, 8-split & 8-quad).



3. Click the Right Mouse Button to assign channels using a drop down menu (all squares must have an assigned number). Click anywhere outside the squares to exit.

4. Repeat for the next Display Modes (up to 16 additions).

5. Right click an empty spot outside of the squares when complete. and select SAVE & EXIT.

6. Press the SEQUENCE button on the Remote or Mouse Menu to switch to Sequence display.

SPOT-OUT

Sends the Specified camera video to a secondary Monitor (using the Spot Out Port on the back of the unit).

- **Check or Uncheck the selected Cameras to have the video sent to a Secondary Monitor in Sequence.**

NOTE: Any cameras NOT selected will not be sent as video to the Spot Out Monitor.

SCREENSAVER

- **Auto Brightness** - Sets the length of time before the Screen brightness is turned down (10, 20, 30, 40 or 50 minutes, or 1 hour).

NOTE: The unit continues to function, and pressing any key will turn the screen back on.

- **Main Display OFF** - Turns the Main Display Screen ON/OFF:
  - **ON** - The Main Display is always ON
  - **OFF** - The Main Display is always OFF

- **FROM** - Used ONLY when the Main Display OFF setting is set to ON. Sets the Start Time for the monitor to go into Screen Saver mode.

- **TO -** Used ONLY when the Main Display OFF setting is set to ON. Sets the End Time for the monitor to exit from Screen Saver mode.

Camera Menu

The Camera Settings and Controls:

CAMERA TITLE - Settings for the onscreen display of individual Camera Titles.

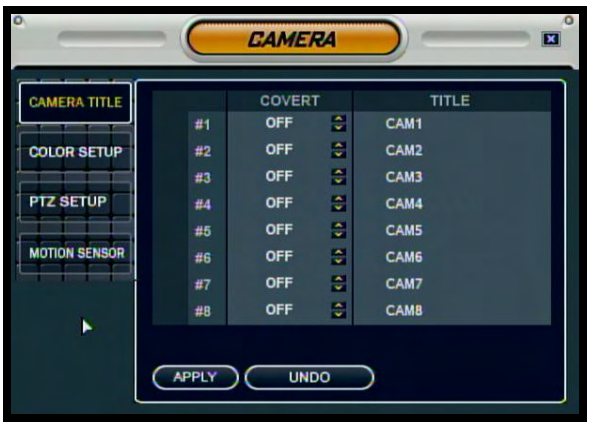
COLOR SETUP - Color settings for individual cameras.

PTZ SETUP - Configuration for PTZ type cameras (not included with the system).

MOTION SENSOR - Configuration for Video Motion Detection.

CAMERA TITLE

The Camera Title menu controls the Covert Camera and Camera Title options.

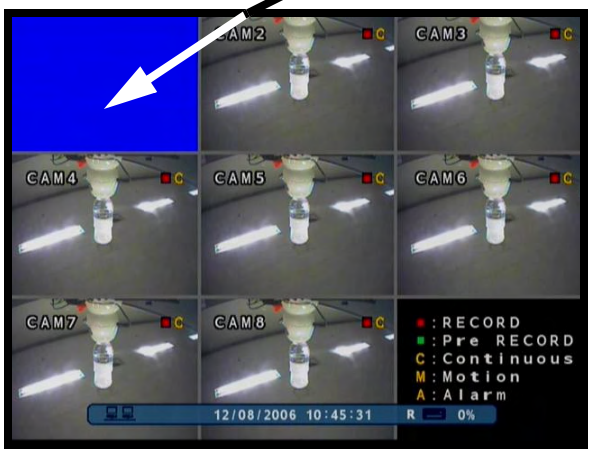


- **CAM #** - Indicates the Camera Number (corresponds to the DIN/BNC connection port on the back of the system).

CAMERA TITLE

- **Covert** - Turns the onscreen display of the Camera ON/OFF. Covert Cameras continue to record, however the camera is not displayed onscreen. This feature is commonly used in situations where the Monitor is located in a public area, and a camera should not be displayed (i.e. Located in a Cash Count room, or directed at a Cash Register).
  - Displays the Camera in Covert Mode.
  - The Camera is not displayed - an empty blue screen is displayed instead of the Video.
  - Covert cameras are configured from the Menu.

CH1 in Covert Mode



- **Title** - Sets the name for the individual camera (0~9, A~Z) up to 11 characters, by using the Virtual Keyboard:
  - **Virtual Keyboard** - Appears when the Camera Title change is selected. Navigate with the arrow keys, and press ENTER to select a Number or Letter.
  - **APPLY** - Saves the Title change.

COLOR SETUP

Displays the settings for **Brightness, Contrast, Tint and Color** for individual cameras.

- Press the ENTER Button and select a camera setting‘.
- Set the **Brightness**, **Contrast**, **Tint and Color** for each camera. These settings can be set to a range of 1(low)~100(high)
- Press the **RETURN** button to return to the Camera Color Setup screen.

The bar displayed on the bottom of the Channel window allows the user to change each setting individually to achieve the best possible picture quality.

PTZ SETUP

PTZ Setup is for PTZ Type Cameras ONLY, which are not included with this system. For more information on PTZ Cameras, visit us on the web at http://www.lorexcctv.com.

- **Address** - Select the physical address setting of the PTZ Camera DIP Switches (From 0~255, refer to the Camera Manual for details).
- **PTZ Protocol** - Select the Protocol for the PTZ Camera. See the list of compatible protocols below. Consult the Owners Manual of the PTZ Camera for further details.
- **Baud Rate** - Setup for the PTZ Communication Speed: (2400, 4800, 9600,19200, 38400 BPS)

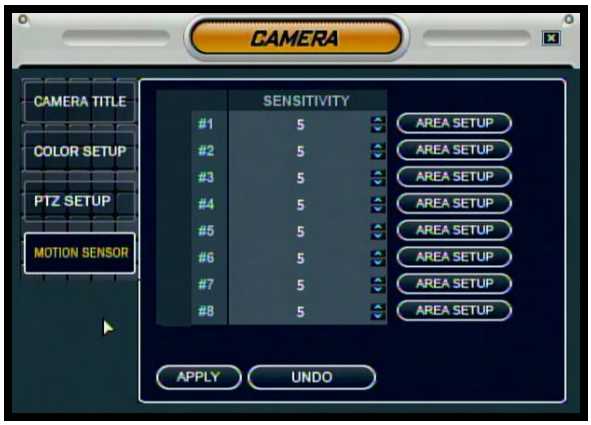
Press to enter the Detailed PTZ Properties screen.

Compatible PTZ Protocols:
PELCO-D, PELCO-P, Samsung (MRX-1000), Samsung(SCC641), Honeywell(SD1), Lilin(Fastdome), Fastrax(11), D-MAX, Sunin DSC-230, Scan Dome-11, Vicon, Philips8560-700, Sensormatic, VRX-2101 Kalatel(KTD-312), EVI-D70/D100, HRX-2000, PTC-200C, Panasonic 950, Panasonic 604, GC-855N, HD800, FastTrax 11-2, PTC-400C, CBC, ZC-PT, VC-C4, LPT-A100L, DXR-50, DVR-Z1200, 130XR-Z2200, GSP, LG-Multi, CRX-1401 & HSD-251N

PTZ PROPERTIES

- **Channel No.** - Camera Number.
- **PTZ Driver** - The compatible driver selected for the PTZ Camera.
- **Auto Focus** - Sets the Automatic camera focus to ON/OFF.
- **Auto Iris** - Sets the Automatic Shutter to ON/OFF.
- **Speed Controls** - Sets the Pitch, Zoom, Focus and Iris speeds between 1~5.

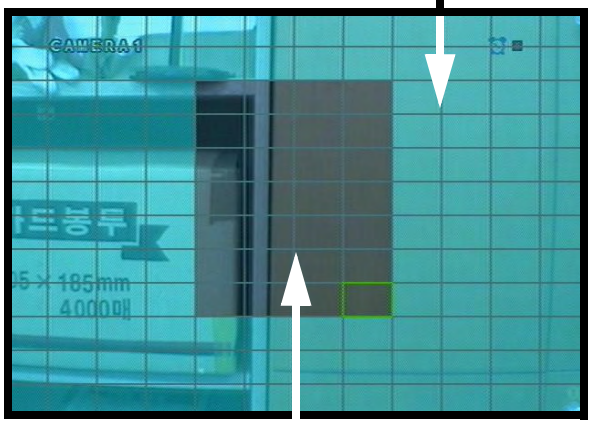
MOTION SENSOR



MOTION SENSOR

- **Sensitivity** - Controls the Motion Sensitivity for the individual camera between 1 (low) ~ 10 (high).
- **Area Setup** - Opens the Area Setup for the camera:

Selected Areas are shaded in BLUE.



Deselected Areas are shaded in GREY.

AREA SETUP -
- Move the Cursor by using the directional arrows located on the Remote Control or using the Mouse.
- Press Enter to select or deselect a Region.
- Press the Return key to access the confirmation screen.

CONFIRMATION SCREEN -
Select All - Selects all areas (BLUE SQUARES)
Deselect All - Clears all areas (GREY SQUARES)
Cancel - Cancels Area Setup
Save & Exit - Saves the settings.

Sound Menu

The System Sound settings:

AUDIO - Settings for the system Audio for Live and Remote monitoring.

BUZZER - Settings for System Buzzer (audible alerts).

SOUND

The Sound Menu controls the Live Audio and Network Audio transfer.

SOUND

- **Live Audio** - Turns Live System Audio (from the Audio on the terminal) to ON/OFF.
- **Audio Monitoring Channel** - Select the channel for Listen-in Audio (Channels 1~4 ONLY).

NOTE: Listen In Audio only works with Channels 1~4. Other channels will send audio which will be Recorded.

- **Network Audio TX** - Sets Network Audio Transmission to ON/OFF.
- **Network Audio RX** - Sets Network Audio Receive to ON/OFF.

BUZZER

- **Keypad** - Turns the Keypad buzzer ON/OFF (when a key is pressed on the Panel).

System Menu

The System Setting controls contain:

DATE/TIME - Date and Time controls for the system.

NETWORK - Network and remote access controls.

MAIL - Mail setup

USER MANAGEMENT - Controls for system users.

SYSTEM MANAGEMENT - System specific settings and controls

CONTROL DEVICE - Settings for an external control device (such as a PTZ Keyboard).

DATE/TIME

DATE/TIME

- **Date/Time** - Sets the current system Date and Time.*
- **Date Format** - Sets the Date Display format (MM-DD-YYYY, YYYY-MM-DD, etc.).
- **Time Format** - Sets the Time Display format to either 12 or 24 hour display.
- **Network Time Server Setup** - Synchronizes the system to the specified remote time server. Select the **SYNC** button to connect to the remote server and synchronize the time.

NOTE: Selecting the SYNC button will attempt to connect to the NTP server. If the server cannot be reached, a “Failure to Connect” message appears.

- **Timezone Setup** - Selections for the local Time Zone (i.e. EST, CST, PST). The **DST** (Daylight Savings Time) can be set to ON/OFF.

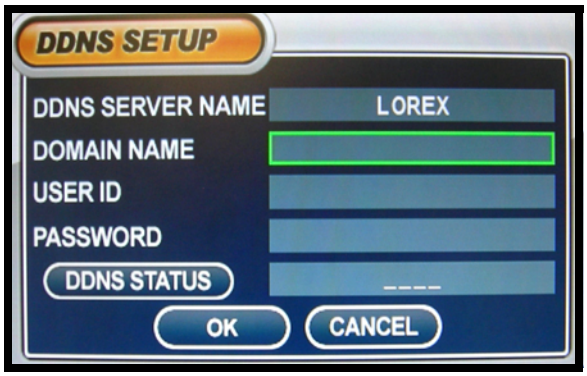
NOTE: MAKE SURE THAT THE DATE AND TIME ARE SET PRIOR TO RECORDING!

If the Date/TIme is set into the past, a message will appear warning that Overlapped date(s) will be erased.

NETWORK

- **DHCP (Dynamic Host Configuration Protocol)** - Allows the System to receive Network Information from the DHCP Server (i.e. The local Router).
  - If DHCP is set to ON, the IP Address, Gateway and Subnet Mask will be assigned by the DHCP Server (i.e. The local area network Router. The Router is not included with this system).
  - If DHCP is set to OFF, the Network Information will need to be assigned manually.

- **DDNS (Dynamic DNS) -** Allows the System to be accessed using a fixed domain (website URL) without entering the IP address. Lorex offers a free web based DDNS Service for remote access at http://www.lorexddns.net
  - If you use the DDNS, there is no need to enter the IP Address with every connection.
  - Navigate to the DDNS website to configure the free account. Enter your specific information (as provided at the DDNS Site)
  - Refer to the Network Setup instructions in the Appendices for information on using the Free DDNS Service.



- **Web Service** - Allows the unit to be remotely accessed using Internet Explorer. This setting can be set to ON/OFF.

- **Max TX Speed** - Sets the default Maximum Data Transfer speed for the remote connection (default of 8192 KB/sec.).

- **Network (TCP/IP) Settings:**
  - **IP Address** - The IP address assigned to the System.
  - **Gateway** - The network Gateway assigned by the Router (or manually entered).
  - **Subnet Mask** - The network Subnet Mask assigned by the Router (or manually entered).
  - **1st / 2nd DNS Server** - Automatically detected if DHCP is set to ON. Displays the IP address of the local DNS Server (i.e. local Router).
  - **DDNS Server** - Set to the free DDNS Server provided by Lorex (http://www.lorexddns.net).
  - **Net Client Port** - Default port of 6100. Used for remote connection.
  - **Web Server Port** - Default port of 80. Used for remote connection.

MAIL SETUP

The Mail Setup can use either the Lorex Mail Server or your existing Email settings to send notifications and alerts

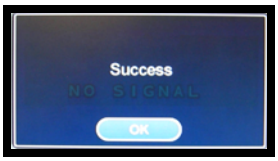
MAIL SETUP

- **Default Server** - Check to use the Default SMTP server provided by Lorex. Uncheck this option to configure the options using your own mail settings.

NOTE: You must sign up for the Lorex DDNS to use the Lorex Mail Server.

The following settings are only needed if you are NOT using the Lorex Mail Server. Uncheck the 'Default Server' box to access the following:

- **SMTP Server** - Enter the Email server information for your IP.
- **Port** - Default port of 25
- **Security** - Sets the Mail Security ON/ OFF (based on the requirements of the mail provider).
- **User** - Enter the User Name.
- **Password** - Enter the User Password
- **Test Email** - Tests the Email Configuration, and generates a SUCCESS or FAIL message.



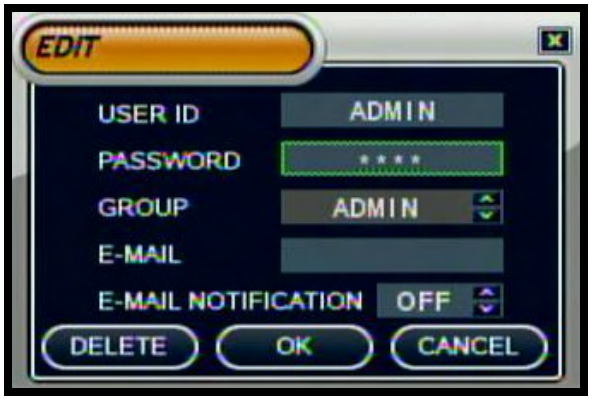
USER MANAGEMENT

USER MANAGEMENT

The User setup consists of 3 groups: Administrator, Manager or User.

Up to 7 new users can be added to the system. A maximum of 4 users can be remotely connected to the System simultaneously.

- **ADD** - Opens the ADD New User screen to configure the new user settings
- **User ID** - Enter an ID (Name) for the new user
- **Password** - Enter a password for the New User
- **Group** - Enter the permissions level:
  - **Admin** - Highest Level Access. The Admin has full system access. There is only one ADMIN, and additional ADMIN level users cannot be added.
  - **Manager** - Mid Level Access. The Manager can use the Search Functions, and view live video.
  - **User** - Low Level Access. The User Can view cameras without changing settings.
- **Email** - Enter the Email address for the New User.
- **Email Notification** - Turns the email notifications for the user ON/OFF.



SYSTEM MANAGEMENT

- **System Information** - Navigate to the PRESS button, and choose ENTER to display the System Information.

To display the System Information from the main Channel view screen, press the ENTER Key on the front Panel -or- Press the INFO button on the Remote Control.

- **System Name** - Input a name for the system using the Virtual Keyboard.
- **FW Update** - Navigate to the PRESS button, and choose ENTER to update the System Firmware.
- **Factory Default** - Navigate to the PRESS button, and choose ENTER to reset the System to Factory Defaults.
- **System Data** - Saves or Loads the System Data (system settings).
- **Password** - Turns the system password ON/OFF (when logging into the Menu Setup and Search Menus).

System Information Screen

Displays the System Information. The IP address and MAC address are necessary for setting up the DDNS Server.

System Information Screen

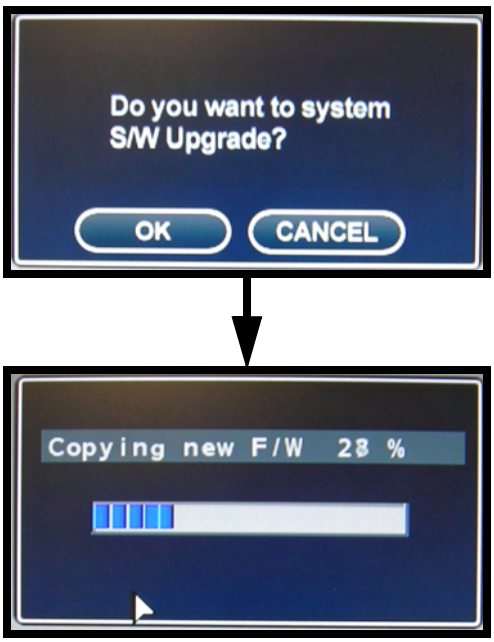
- **IP Address** - Displays the IP address assigned to the System.
- **MAC Address** - Displays the unique MAC address assigned to the unit. This address is hard coded to the unit and cannot be changed.
- **Disk Capacity** - Displays the Total Hard Drive space, and the amount of Hard Drive in use.
- **F/W Version** - Displays the Firmware and Hardware version numbers.
- **Video Signal Type** - Indicates the Video Signal Type as either NTSC or PAL (depending on Region).
- **DDNS Domain Name -** The name setup when the online DDNS registration was created.
- **Net Client and Web Ports** - Displays the ports for remote connection.

Firmware Update

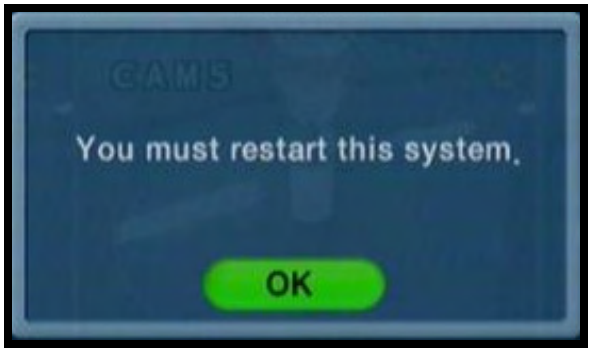
New firmware is periodically available for download from the www.lorexcctv.com website.

The firmware on the unit can be updated via the USB Port:

- Download the new firmware from the website. Copy the files from the PC to the USB Memory Stick.
- Insert the Memory Stick into the System. Select the 'Firmware Update' option by selecting the PRESS button.
- The USB device will be recognized by the system - Press the START button to display the available firmware.
- Select the Firmware and press ENTER. A prompt will appear confirming the Update.
- Press OK to begin the update process.



- The System must be restarted for the Changes to Take effect. Press OK, and exit the Menu. The System will automatically Reboot.



NOTE: The System will need to be rebooted once the firmware has been updated for the new changes to take effect.

You can also upgrade your firmware over the network (from a remote location) using the provided Lorex Client Software.

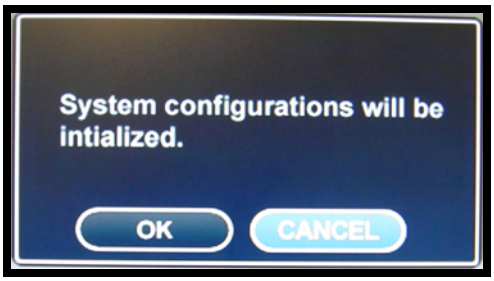
This is useful if you are in a remote location, or if you would like to upgrade multiple units at different locations.

Please refer to the Lorex Client Software manual for details on performing a Remote Firmware Upgrade.

Factory Defaults

The System can be returned to the Factory default settings:

- Select the 'Factory Defaults' option by selecting the PRESS button.
- Choose OK to reset the unit, or CANCEL to exit without resetting.

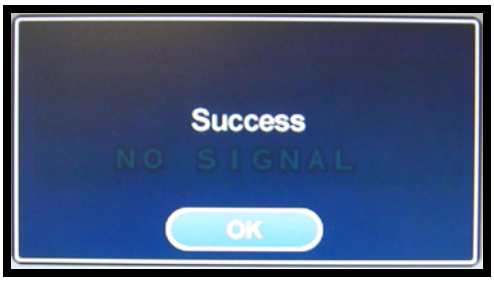


NOTE: If the System is reset to Factory Defaults, all settings will be lost (except the Date and Time).

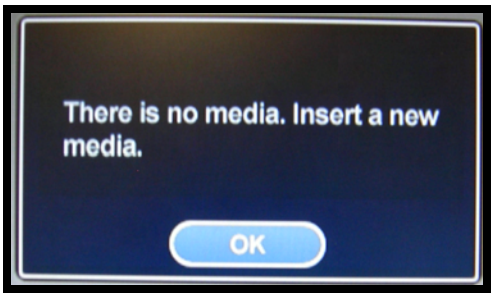
System Data

The System settings can be saved to a USB memory stick:

- Insert the Memory stick into the System and select the Save option to save settings:
  - A Success message indicates that the backup was completed.



  - If the device is not detected, a message will indicate that No storage device was found.



- Insert the Memory stick into the System and select the Load option to restore settings.

This is recommended after initial setup and installation is complete.

CONTROL DEVICE

Used with an external control device (not included with the system):

- **System ID** - Select system ID. (1~254). This is used to set a different ID number to the System (if used, reset the Remote Control ID to match the system ID).
- **Protocol** - Select protocol (from the Device user Manual).
- **Baud rate** - Setup baud rate (from the Device user Manual).

Event / Sensor

The Event Sensor Setting controls contain:

HDD EVENT - Checks the Hard Drive for errors.

ALARM IN - Configuration settings for an external Alarm sensor (i.e. Door / Window Sensors).

ALARM OUT - Sends a signal to an external device when an alarm is detected.

BUZZER OUT - Turns the audible Buzzer ON/OFF for selected event types.

E-MAIL NOTIFICATION - Sends and E-Mail notification when a selected event occurs (based on User Configuration settings).

HDD EVENT

HDD EVENT

- **Smart Alarm** - Sets the Smart Alarm ON/OFF. An alarm occurs when errors are detected with the drive.
- **Check Interval** - Sets the Hard Drive check interval (1~24 hrs). This setting allows the System to self-check the drive for any errors, and generate an Alarm if drive errors are found.

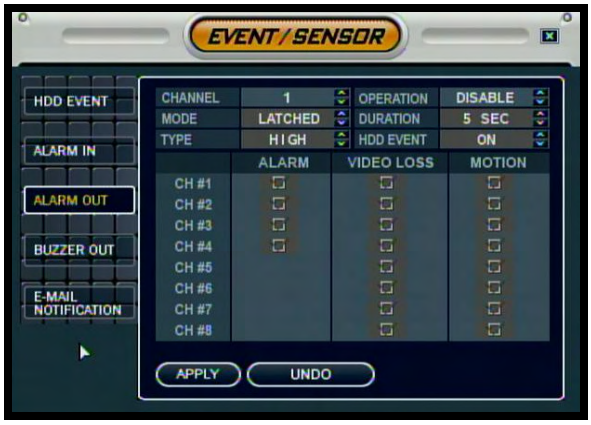
ALARM INPUT

Configurations for any external alarm device (i.e. a Door or Window Sensor).

- **Operation** - Sets the Alarm Sensor Connection Status (Enable / Disable) for an external alarm (i.e. Door or Window Sensors). Refer to the appendices for details.
- **Type:** Sets the Alarm Sensor type to N/O (Normally Open) or N/C (Normally Closed).

ALARM OUT

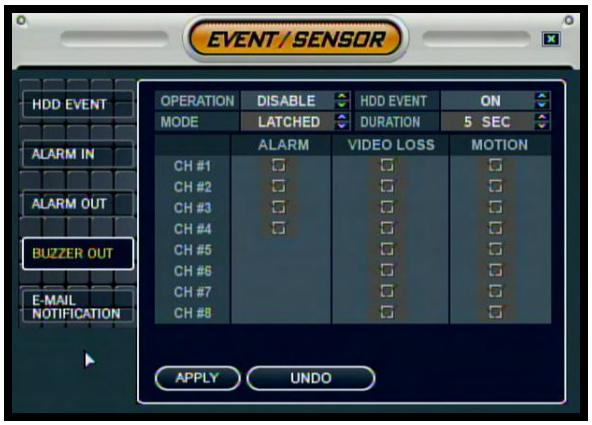
Sends an Alarm Out signal to a device (such as a Manual Door or independent Light/ Buzzer Alarm) when an Alarm In event is detected



- **Channel** - Indicates all channels.
- **Operation** - Setup Relay Connect with Alarm Sensor to either Enable or Disable. Must be ENABLED to change the settings manually.
- **Mode** - Setup Reacted Relay as either Latched or Transparent Mode:
  - Latched – When sensor alarm activated, relay reacted in setup duration.
  - Transparent – Relay reacted temporary during sensor alarm activate.
- **Duration** - Sets the Reacted Relay Time. (5sec~5min or Until key-in)
- **Type** - Set the Relay Type to either N/O (Normally Open) or N/C (Normally Closed).
- **HDD Event** - Turns the Alarm ON/OFF when the Hard Drive experiencing problems.
- **CH1~8 Alarm** - Sends the Alarm Out when an Alarm Event is detected (set to ON/OFF).
- **CH 1~8 Video Loss** - Sends the Alarm Out when a Video Loss Event is detected (set to ON/OFF).
- **CH 1~8 Motion** - Sends the Alarm Out when a Motion Event is detected (set to ON/OFF).

BUZZER OUT

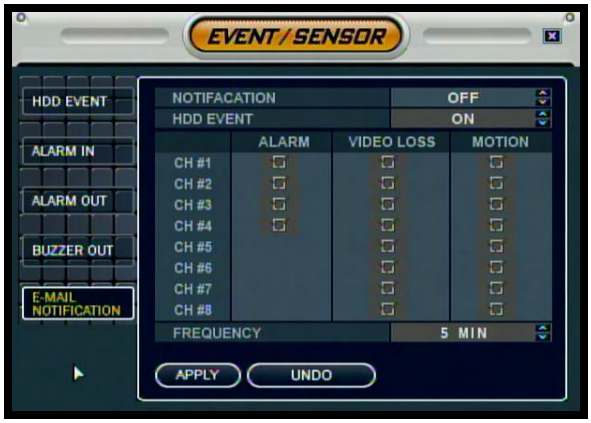
Generates a Buzzer when an alarm is detected.



- **Operation** - Enables / Disables the buzzer for selected Event / Alarm types. Set to ENABLE to change the following settings:
  - **Mode** - Set the Reacted Relay to either Latched or Transparent Mode.
  - **HDD Event** - Generates a Buzzer alert when a Hard Drive event occurs (set to ON/OFF).
  - **Duration** - Sets the Buzzer time (5sec ~ 5min or until a user logs into the system).
  - **Alarm** - Generates a Buzzer Alarm when an Alarm Event is detected (set to ON/ OFF).
  - **Video Loss** - Generates a Buzzer Alarm when a Video Loss Event is detected (set to ON/OFF).
  - **Motion** - Generates a Buzzer Alarm when a Motion Event is detected (set to ON/OFF).

EMAIL NOTIFICATION

Sends an email to the specified users when the following events occur:



- **Notification** - Sets the E-Mail notification ON/OFF.
- **HDD Event** - A notification is sent if a Hard Drive event is detected (set to ON/OFF).
- Notifications can be enabled for each channel for:
  - Alarm
  - Video Loss
  - Motion can be selected

NOTE: Emails will be sent at 5 minute intervals for the duration of the Event.

Disk Management

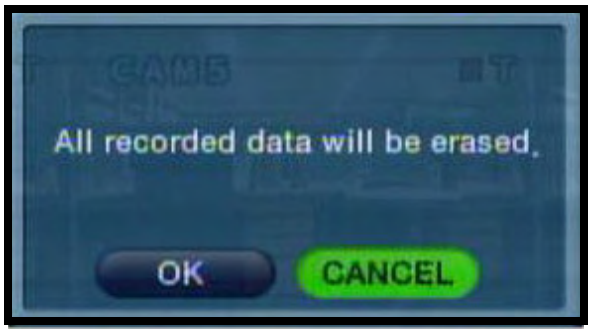
- **Record Time Limit** - Setup for the Recording Time Limit (OFF, 12h, 1~3 days, 1 week or 1 month).

NOTE: The Record Time Limit refers to the length of time data will be kept on the drive. For example:

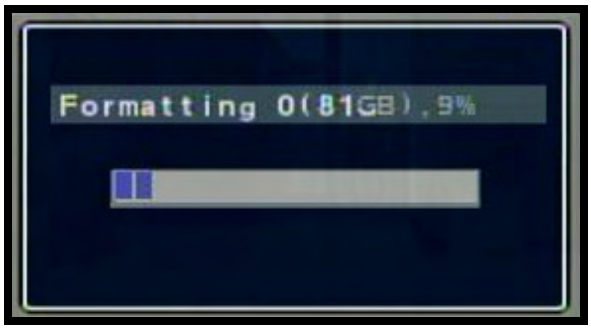
The Record Time Limit is set to 1 week. The System records data from the 1st of the month through the 7th of the month. On the 8th of the month, it will begin overwriting data (hour by hour) that occurred on the 1st of the month. On the 9th of the month, it will begin overwriting data that occurred on the 2nd of the month. The OVERWRITE feature must be ON for the Record Time Limit feature to work.

- **Overwrite** - Determines how data is maintained when the Hard Drive is full.:
  - **ON** - When Overwrite is set to ON, data will be overwritten when the Hard Drive is full, starting with the Oldest recording, or based on the Record Time Limit settings.
  - **OFF -** When Overwrite is set to OFF, the data will not be overwritten when the Hard Disk is Full. Recording will Stop, and the Buzzer will be Activated.

- **Format** - Erases all Hard Drive data:
  - Press start button. A warning message will be displayed with the prompt 'All Recorded Data will be erased.'
  - Select OK to erase the data, or CANCEL to return without erasing the Hard Drive.



- Once OK is selected, the user will be prompted to enter the **ADMIN PASSWORD.** Once the password is accepted, all Hard Drive data will be erased.



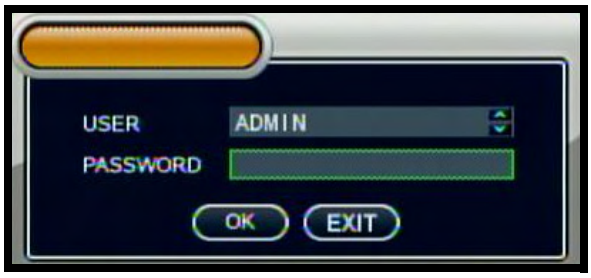
Formatting Status Indicator Window: Once the format is complete, the system will return to the Disk Manage Menu.

NOTE: After Formatting a hard drive with existing data, Playback of the old data is no longer possible.

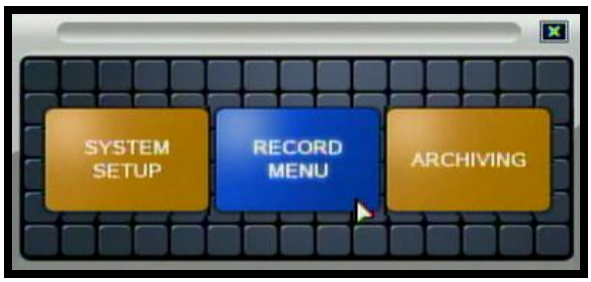
Recording Menu Controls

- Enter the **RECORDING MENU** screen by:
  - Pressing the **SETUP** button on the Remote Control
  - Pressing the **SETUP** button on the front panel, or
  - Selecting the **SETUP** option from the On-Screen Menu.

  Enter the password if required using the Virtual Keyboard.



- Select the **RECORD MENU** option.



- To enter a sub-menu, navigate to the option and press the **ENTER** button. To exit a **SUBMENU**, press the **RETURN** button.
- To exit the **MAIN MENU**, press the **RETURN** button.

NOTE: When configuring the Recording Settings, it is recommended that you use the Mouse or Remote Control for navigation.

Alternatively, you can use the Client Software provided with this system to change the System Settings and Recording Configurations remotely. Please refer to the Client Software Manual for details.

Simple and Advanced Modes

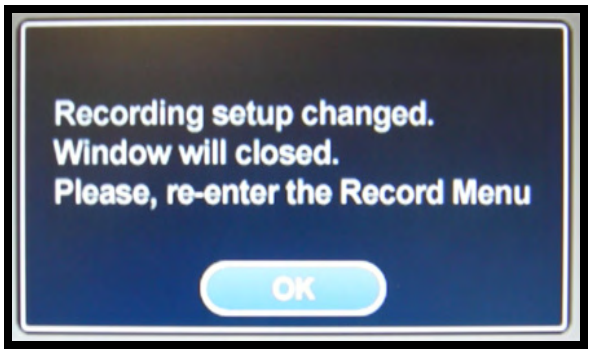
This System allows you to configure the Recording Options in two ways:

- **Simple Recording**: Simple recording will set all cameras to behave in the same way, with the same resolution and FPS. In Simple Recording, the recording type can be set to *either* Continuous, Motion, Alarm or None.
- **Advanced Recording**: Advanced recording will allow you to configure each camera to behave in a different way, based on quality, FPS and resolution. In Advanced Recording, the menus are separated so that you can set each camera to record in Continuous, Motion and Alarm at the same time.

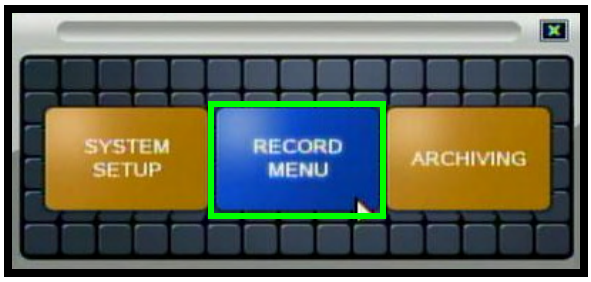
  For example, set the system to record in Continuous, Motion and Alarm at the same time. A camera will be in continuous recording, however when a Motion or Alarm event is detected, the onscreen indicator will switch to M or A, and the event will be logged in the system.

To switch between Recording Modes, change the Recording Mode setting on the **RECORDING OPERATION** tab to either Simple or Advanced.

Once the settings have been changed, a status window will appear indicating that the changes have been saved. Choose the OK button to close the status window and return to the Main Menu.



To return to the Record Menu, select the Record Menu button from the Main Menu selections.



Simple Recording Mode

Settings in the Simple Recording Mode affect all cameras at once (i.e. all cameras have the same FPS, Resolution, etc.). To set each camera separately, switch to Advanced Mode.

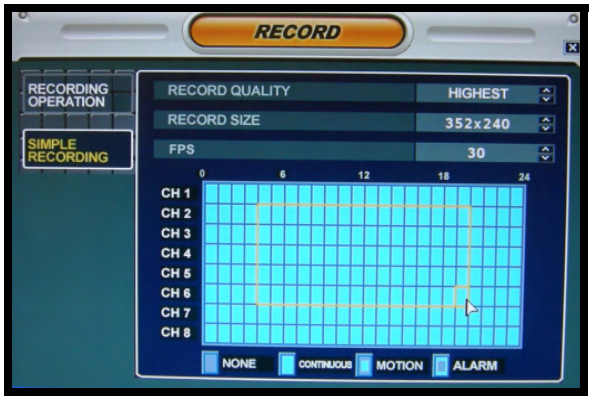
Simple Recording Mode

Recording Operation

The Recording Operation Menu allows the user to switch between Simple and Advanced Modes. The settings for Schedule Mode, Pre-Event Recording Time and Post-Event Recording Time cannot be changed. These settings can only be configured in Advanced mode.

Simple Recording

The Simple Recording Menu controls the Quality, Size and FPS for all cameras at the same time. Each channel can be set for a single Recording Type (Continuous, Motion, Alarm or None).

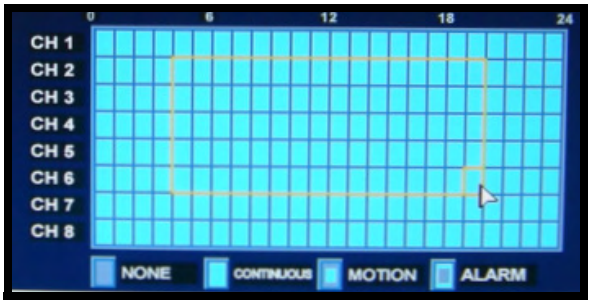


- **Recording Quality** - Sets the video recording quality to Low, Standard, High or Highest for all cameras.
- **Recording Size** - Sets the video capture size for all camera to 352x240, 704x240 or 704x480 for all cameras.
- **FPS** - Sets the Frames Per Second for recording across all channels. The FPS for the channels can be set to 1, 2, 3, 7, 15 or 30 Frames per second (real time video capture) from a shared pool of 240 FPS.

Simple Recording Mode

Select a single or multiple time blocks:

- **Mouse Control**: Click a single block to open the Recording Type Menu. Click and Drag a block of times to configure multiple channels and times at once.
- **Remote Control & Front Panel**: Navigate to the Channel Block section, and the entire block will be highlighted with a White outline:
  - Press the ENTER button to access the Time Blocks - the first hour on Channel 1 will be highlighted in Yellow.
  - Navigate to the desired time block, and press the ENTER button to activate the block - if a single block is desired, press ENTER a second time.
  - To select multiple blocks, use the arrows to drag the cursor until the desired time blocks are selected and press the ENTER key.



The Recording Selection menu will open. Select ONE of:

- None
- Continuous Recording
- Motion Recording
- Alarm Recording

Once a selection has been made, the Recording Selection window will close.

Advanced Recording

Recording Operation

The Recording Operation Menu allows the user to switch between Simple and Advanced Modes, set the Recording Schedule, and change the Pre and Post Event Recording times.

- **RECORDING MODE** - Changes the Recording mode from Simple to Advanced.
- **SCHEDULE MODE**- Sets the Scheduled Recording Mode to Daily or Weekly:
  - If you set the Schedule Mode to Daily, all settings made to the Continuous/Motion & Alarm Setup menus will affect all days in the same way.

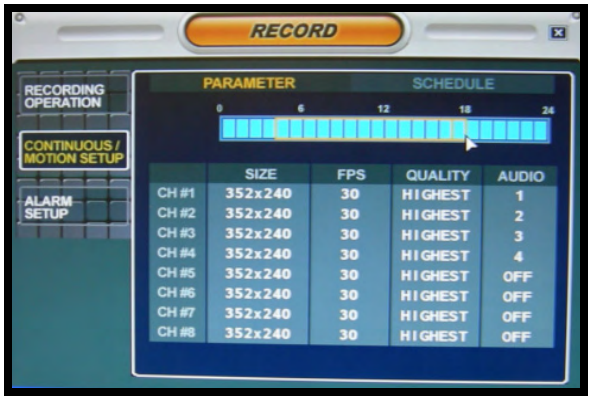
  - If you set the Schedule Mode to Weekly, the settings can be set differently for each day of the week.

- **PRE EVENT RECORDING** - When an alarm is detected, the Pre Alarm will begin recording before the Alarm was detected (retrieved from video cache). The Pre Alarm Recording Time can be set to between 1~5 seconds.
- **POST EVENT RECORDING** - When an alarm is detected, the Post Alarm will remain recording for the specified time. The Post Alarm Recording Time can be set to between 5~180 seconds.

Advanced Recording

Continuous / Motion Setup

The Continuous/Motion Setup section controls the Recording settings for each camera individually (quality, resolution, frame rate and audio). Both Continuous (constant recording) and Motion (recording when motion has been detected by the system) are set in this menu.


RECORD
RECORDING OPERATION
CONTINUOUS / MOTION SETUP
ALARM SETUP
PARAMETER
SCHEDULE
0 6 12 18 24
SIZE FPS QUALITY AUDIO
CH #1 352x240 30 HIGHEST 1
CH #2 352x240 30 HIGHEST 2
CH #3 352x240 30 HIGHEST 3
CH #4 352x240 30 HIGHEST 4
CH #5 352x240 30 HIGHEST OFF
CH #6 352x240 30 HIGHEST OFF
CH #7 352x240 30 HIGHEST OFF
CH #8 352x240 30 HIGHEST OFF

- **PARAMETER MODE** - Contains the general recording parameters for each camera.
- **SCHEDULE MODE** - Contains the schedule recording settings for each camera.

Continuous / Motion Parameter

Parameters for each camera are set by hour using the Time Interval bar. Hours can be selected individually or in groups (by clicking and dragging several blocks).

NOTE: If Schedule Mode was set to Weekly earlier, a day selection option is available.

Continuous / Motion Parameter

Select an Hour (highlighted in ORANGE), and press ENTER again to open the Camera Settings for the selected hour, or select multiple blocks in a row and press ENTER.

Selected Block of Hours

Once a time block or several blocks have been selected, the Channel Setup window is displayed.

SIZE FPS QUALITY AUDIO
CH1 352x240 30 HIGHEST 1
CH2 352x240 30 HIGHEST 2
CH3 352x240 30 HIGHEST 3
CH4 352x240 30 HIGHEST 4
CH5 352x240 30 HIGHEST OFF
CH6 352x240 30 HIGHEST OFF
CH7 352x240 30 HIGHEST OFF
CH8 352x240 30 HIGHEST OFF
6 frames remained
OK
CANCEL

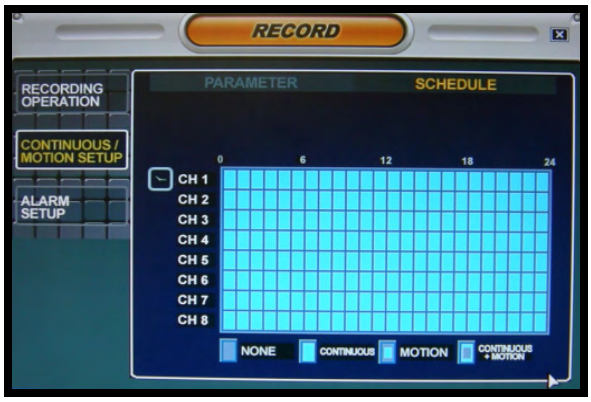
- **Size** - Sets the video capture size for each camera to 352x240, 704x240 or 704x480.
- **FPS** - Sets the Frames Per Second for recording for each channel. Each channel can be set to 1, 2, 3, 7, 15 or 30 Frames per second (real time video capture) from a shared pool of 240 FPS. If the FPS drops below 0, the settings will not be saved.
- **Quality** - Sets the video recording quality to Low, Standard, High or Highest.
- **Audio** - Turns audio recording ON/OFF for 4 channels ONLY.

Once settings have been adjusted for the hour, the changed time block will be displayed in a different color on the Time Interval bar.

NOTE: Each different configuration will be displayed as a different color on the bar.

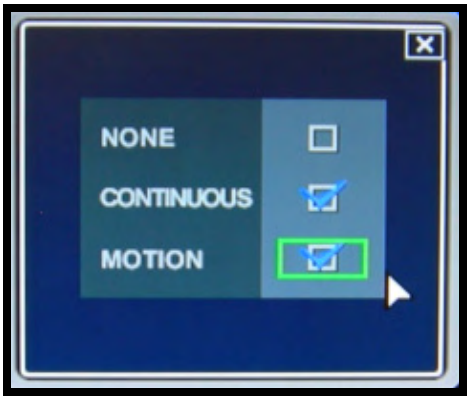
Continuous / Motion Schedule

Sets the Time or Motion recording for each channel (by hour). Select single or multiple time blocks:



- **Mouse Control**: Click a single block to open the Recording Type Menu. Click and Drag a block of times to configure multiple channels and times at once.
- **Remote Control & Front Panel**: Navigate to the Channel Block section, and the entire block will be highlighted with a White outline:
  - Press the ENTER button to access the Time Blocks - the first hour on Channel 1 will be highlighted in Yellow.
  - Navigate to the desired time block, and press the ENTER button to activate the block - if a single block is desired, press ENTER a second time.
  - To select multiple blocks, use the arrows to drag the cursor until the desired time blocks are selected and press the ENTER key.

Once the desired time(s) have been selected, the Recording Setting menu is displayed.



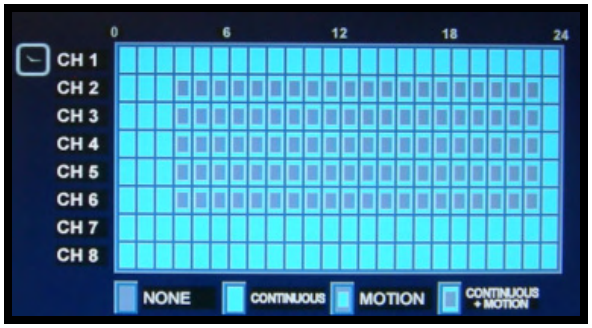
Select from:

- **NONE**: Recording is turned OFF.
- **CONTINUOUS**: Recording is always ON.
- **MOTION**: Only starts the recording if motion is detected in the selected time interval.

NOTE: This system has an Advanced Recording Feature where BOTH Continuous and Motion can be set to ON at the same time:

- The system will record continuously, but when motion is detected the system will display a **M** recording type on the relevant channel.
- The event will be logged as Motion in the system archive.
- This is useful in situations where you want to have continuous recording, but wish to have Motion detected for easier event searching.
- In addition, an e-mail notification can be sent when Motion has been detected.

Select the RETURN button to apply the changes. Once the settings have been adjusted for the hour(s), the changed time block(s) will be shown based on the legend:



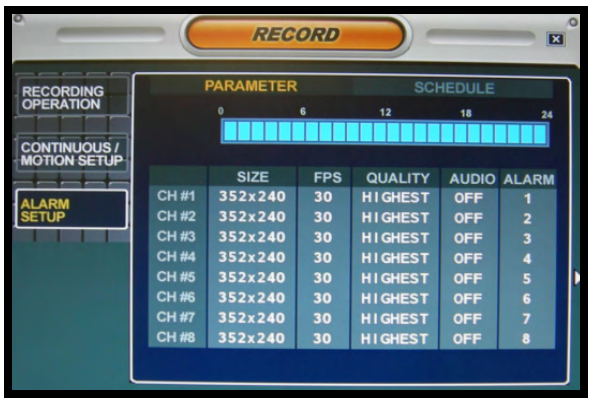
Legend:

- None
- Continuous
- Motion
- Continuous & Motion

Advanced Recording

Alarm Setup Mode

The Alarm Setup section controls the Recording settings for each camera individually (quality, resolution, frame rate and audio). Recording Settings for external alarm detection are set in this menu.


RECORD
RECORDING OPERATION
CONTINUOUS / MOTION SETUP
ALARM SETUP
PARAMETER
SCHEDULE
0 6 12 18 24
SIZE FPS QUALITY AUDIO ALARM
CH #1 352x240 30 HIGHEST OFF 1
CH #2 352x240 30 HIGHEST OFF 2
CH #3 352x240 30 HIGHEST OFF 3
CH #4 352x240 30 HIGHEST OFF 4
CH #5 352x240 30 HIGHEST OFF 5
CH #6 352x240 30 HIGHEST OFF 6
CH #7 352x240 30 HIGHEST OFF 7
CH #8 352x240 30 HIGHEST OFF 8

- **PARAMETER MODE** - Contains the general recording parameters for each camera.
- **SCHEDULE MODE** - Contains the schedule recording settings for each camera.

Alarm Parameter

Parameters for each camera are set by hour using the Time Interval bar. Hours can be selected individually or in groups (by clicking and dragging several blocks).

NOTE: If Schedule Mode was set to Weekly earlier, a day selection option is available.

Alarm Parameter

Select an Hour (highlighted in ORANGE), and press ENTER again to open the Camera Settings for the selected hour, or select multiple blocks in a row and press ENTER.

Selected Block of Hours

Once a time block or several blocks have been selected, the Channel Setup window is displayed.

SIZE FPS QUALITY AUD
CH1 352x240 30 HIGHEST 1
CH2 352x240 30 HIGHEST 2
CH3 352x240 30 HIGHEST 3
CH4 352x240 30 HIGHEST 4
CH5 352x240 30 HIGHEST OFF
CH6 352x240 30 HIGHEST OFF
CH7 352x240 30 HIGHEST OFF
CH8 352x240 30 HIGHEST OFF
6 frames remained
OK
CANCEL

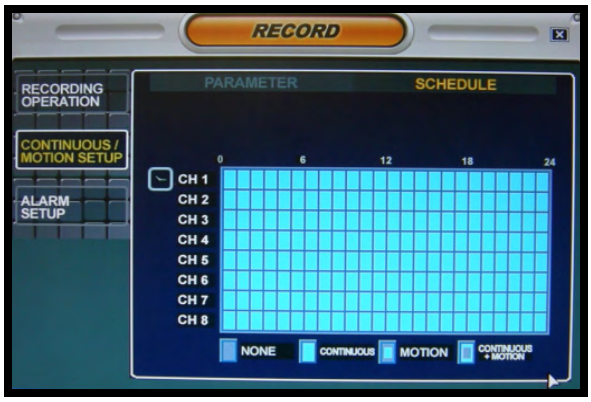
- **Size** - Sets the video capture size for each camera to 352x240, 704x240 or 704x480.
- **FPS** - Sets the Frames Per Second for recording for each channel. Each channel can be set to 1, 2, 3, 7, 15 or 30 Frames per second (real time video capture) from a shared pool of 240 FPS. If the FPS drops below 0, the settings will not be saved.
- **Quality** - Sets the video recording quality to Low, Standard, High or Highest.
- **Audio** - Turns audio recording ON/OFF for 4 channels ONLY.

Once settings have been adjusted for the hour, the changed time block will be displayed in a different color on the Time Interval bar.

NOTE: Each different configuration will be displayed as a different color on the bar.

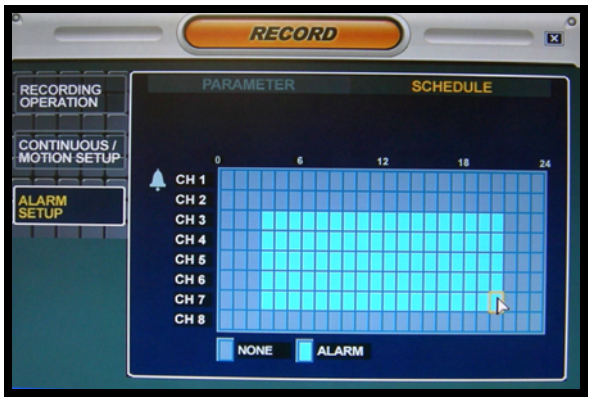
Alarm Schedule

Sets the Alarm Recording for each channel (by hour). Select single or multiple time blocks:



- **Mouse Control**: Click a single block to open the Recording Type Menu. Click and Drag a block of times to turn Alarm Recording ON or OFF.
- **Remote Control & Front Panel**: Navigate to the Channel Block section, and the entire block will be highlighted with a White outline:
  - Press the ENTER button to access the Time Blocks - the first hour on Channel 1 will be highlighted in Yellow.
  - Navigate to the desired time block, and press the ENTER button to activate the block - if a single block is desired, press ENTER a second time.
  - To select multiple blocks, use the arrows to drag the cursor until the desired time blocks are selected and press the ENTER key.
  - Alarm Recording will be turned ON or OFF.

Once the settings have been adjusted for the hour(s), the changed time block(s) will be shown based on the legend:



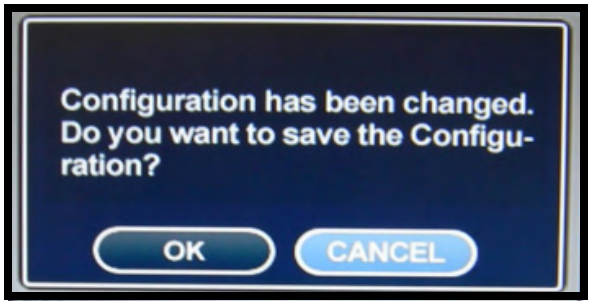
Legend:

- None
- Alarm

Saving the Settings

You will be prompted to save the settings when exiting a window (when changes have been made)

Click on OK to save the settings, or CANCEL to exit without saving.

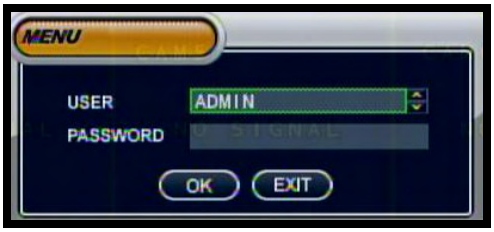


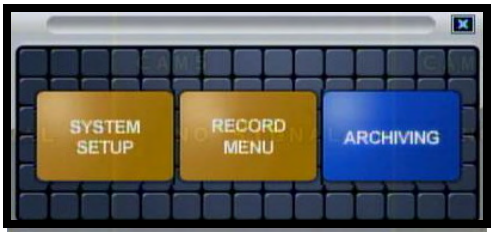
Archiving

The Archive feature copies data from the Hard Drive to a USB backup media (such as a Memory Stick or USB Hard Drive), optical drive (CD-RW / DVD-RW) or FTP.‘

NOTE: Make sure that you have removed all data from the USB device prior to backup.

- Enter the **ARCHIVING** screen by pressing the **MENU** button. Enter the password, and select the **ARCHIVING** option.

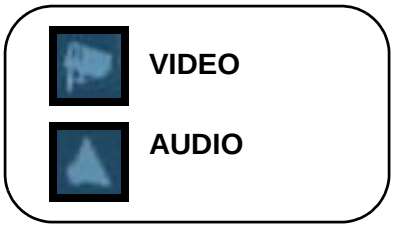




- Scroll through the options by pressing the **UP**, **DOWN**, **LEFT and RIGHT** buttons on the Front Panel or Remote Control.
- To enter a sub-menu, navigate to the option and press the **ENTER** button. To exit a **SUBMENU**, press the **RETURN** button.
- To exit the **MAIN MENU**, press the **RETURN** button.

Archiving Options

- **Select Device** - Displays all detected backup media devices (USB Flash Memory Stick or USB Hard Drive), or allows the user to back-up data to a remote FTP Site.
- **From** - Select the Start Time and Date for Backup.
- **To** - Select the End Time and Date for Backup.
- **Mode** - Select the Backup Mode:
  - Burning - Copies the data to the backup device.
  - Burning/ Erasing - Copies the data to the backup device, then deletes the data from the System Hard Drive.
  - Select the START button to begin backup.
- **A/V channel** - Select the Video and Audio Channel(s) for backup



- **Title** - Sets the Title for the backup sequence using the Virtual Keyboard.
- **Event** - Attaches the EVENT Report text file to the backup.

Archiving Options

Once the Start Time, End Time and Channel Selections have been completed, select the START Button

A Drive Usage report will be displayed including Amount of space (in MB) needed, Start and End Times for Each Channel, with size of recordings (in MB) and Size of the Log File

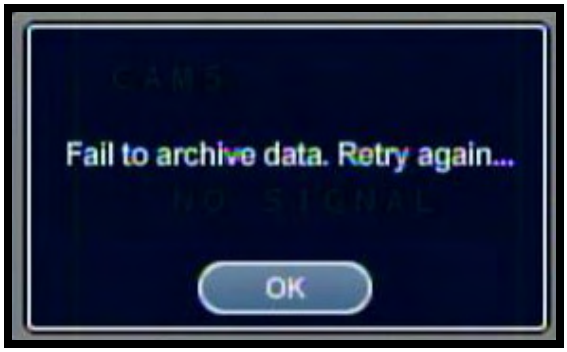
Select **OK** to begin the backup

The Writing status window displays the completion state of the Backup (in%)

The Extracting status window displays the completion state of the Extraction of previously archived data (in%)

The Erasing status window displays the completion state of the Erasing of previously archived data (in%)

Error Messages



Error dialogue when the archive process fails.

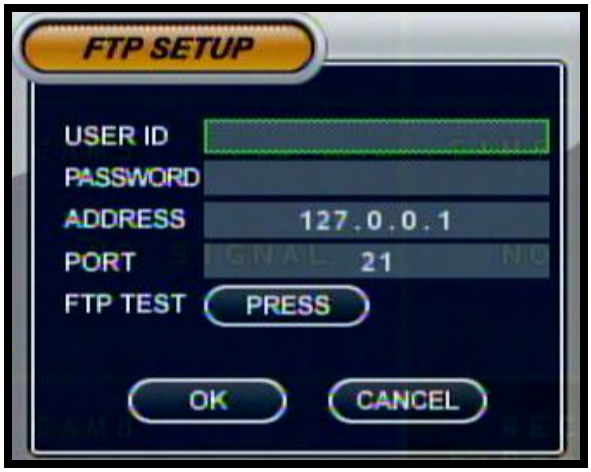
Error dialogue displayed when the backup device (USB) is not detected

Archive Backup to FTP

A schedule for data backup to a local or remote FTP can be configured on the System.

1. Choose FTP from the 'Select Device' dropdown menu.

2. Press the FTP Button to access the FTP Settings:



- **User ID:** Enter the User ID used to log into the FTP site.
- **Password:** Enter the Password used to log into the FTP site.
- **Address:** Enter the IP Address of the FTP site
- **Port**: Enter the Port used to connect to the FTP Site.

Press the FTP Test button to test the connection to the FTP site. A 'Success' or 'Fail' message will appear.

Once a successful connection has been made, the FTP Configuration Menu will be displayed:

- **Operation:** Set the FTP Backup to ON or OFF.
- **Device:** Set to FTP (as shown in previous instructions).
- **Mode:** Set the mode to Once (one time backup only) or Daily (data backup occurs every day at the time specified in the Start Time setting).
- **Start Time:** Set a time to begin the backup process.
- **From:** Set the starting time for the data archive.
- **To:** Set the ending time for the data archive.

For example, to back-up a retail sales day, set the 'From' time to 7am, and the 'To' time to 10pm. Start the backup at 10:30pm.This will archive 15 hours worth of data to the FTP site.

Search

Search mode allows you to locate previously recorded video by Date and Time, or by Event Type.

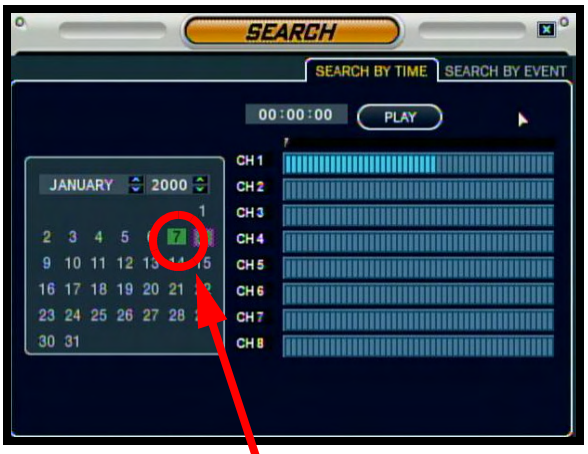
- Press the Search Button on the Remote Control or Mouse Menu.

- Enter the User Name and Password (if required).
- Use the Left / Right arrows on the Remote Control, or click with the mouse to switch between the Search By Time and Search By Event screens.

Search By Date & Time

Searches the system based on date and time.

- Press the Enter button to access the Calendar (on the left side of the screen)
- Navigate within the calendar using the Arrow Keys on the front panel or remote control.
- Once the date has been located, press the Enter button to accept the date, and to access the Time Search (on the right side of the screen).
- Press and Hold the arrow keys to select the Time (increments of 1 minute). Pressing the button without holding will increment 15 minutes.



Any days highlighted with GREEN indicate that there is recorded video data.

- Press the Enter button to start the playback. Press the Return button to stop playback and return to the Search By Time screen.

The Date and Time will be displayed at the bottom of the screen. A playback icon will appear indicating that the unit is in Playback mode.

NOTE: The unit will continue to record data while in Playback Mode.

Search By Event

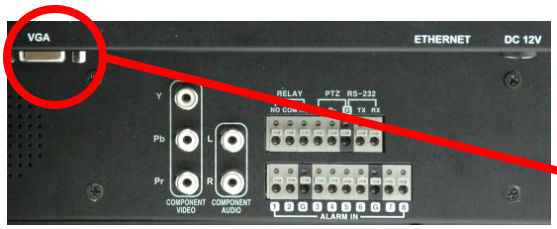
Searches the system based on Event Type (Alarm, Motion, Continuous or System).

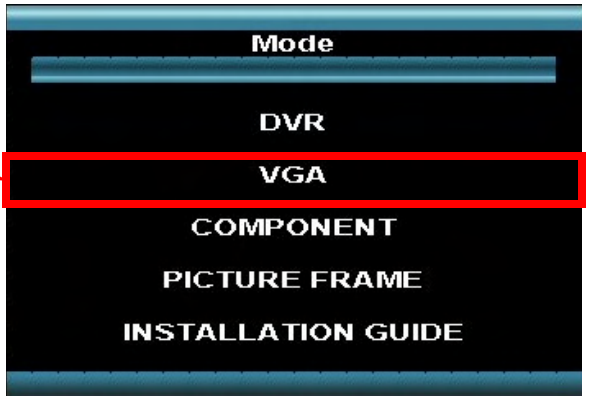
- Press the right arrow button on the front panel or remote control to access the Search By Event screen.
- Select From and To dates, Events (Alarm, Continuous, Motion and Other) and Cameras
- Navigate within the options using the Arrow Keys on the front panel or remote control. Press the Enter button to select or deselect options (Note: Multiple event types can be selected).
- Navigate to the Start button at the bottom of the screen and press the Enter button. A listing of events will be displayed.

Navigate to an event, and press the Enter button to start the playback. Press the Return button to stop the playback.and return to the Event Search screen.

VGA Mode (Mode 2)

VGA Mode is used to display a device (i.e. a Computer) connected to the VGA Port on the monitor.





To view a Computer using the Monitor:

1. Connect the PC to the Monitor using a VGA Cable.

NOTE: VGA Cable is not included with the system.

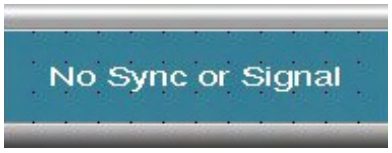
2. Switch the Monitor to VGA mode using the Multi-Function Mode Button on the front of the Monitor, or by pressing the VGA Button on the Remote Control.

NOTE: Press the PIP button to display the DVR in the bottom right corner.

VGA Connection Errors

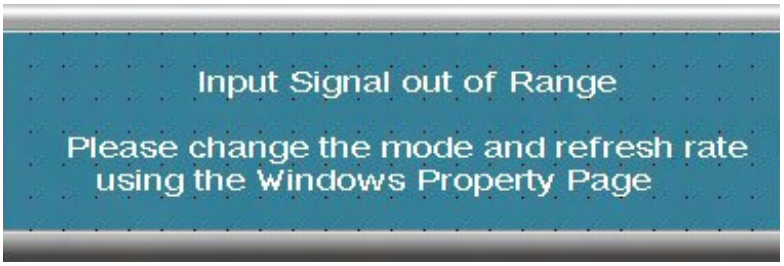
If the Computer is not correctly connected to the Monitor, several different error messages may be displayed:

Cable Not Connected: Indicates that the VGA cable has not been securely fastened to either the Monitor or PC.



No Sync or Signal: Indicates that the PC is not sending a good signal. Try changing modes on the PC.

Going to Sleep: Indicates that the Monitor is not receiving a signal from the PC, and is going into hibernation. This does not affect the DVR functions.



VGA Mode - Remote Control Usage

Listed below is a quick reference for the Remote Control usage in VGA Mode.

1. **MODE:** Press the Mode Button to display the Multi-Function Mode Menu.

2. **POWER**: Press the Power Button to turn off the Monitor Display. Press and hold the button for 3 seconds to shut down the entire system.

3. **DVR MODE**: Return to DVR Mode.

4. **VGA MODE:** Change to VGA Mode.

5. **RETURN**: Exits from a System Menu.

6. **NAVIGATION:** Press the Navigation Controls to move Up, Down, Left or Right in the Monitor Menu.

7. **VOL +/-**: Increase or Decrease the volume of the camera currently broadcasting live audio.

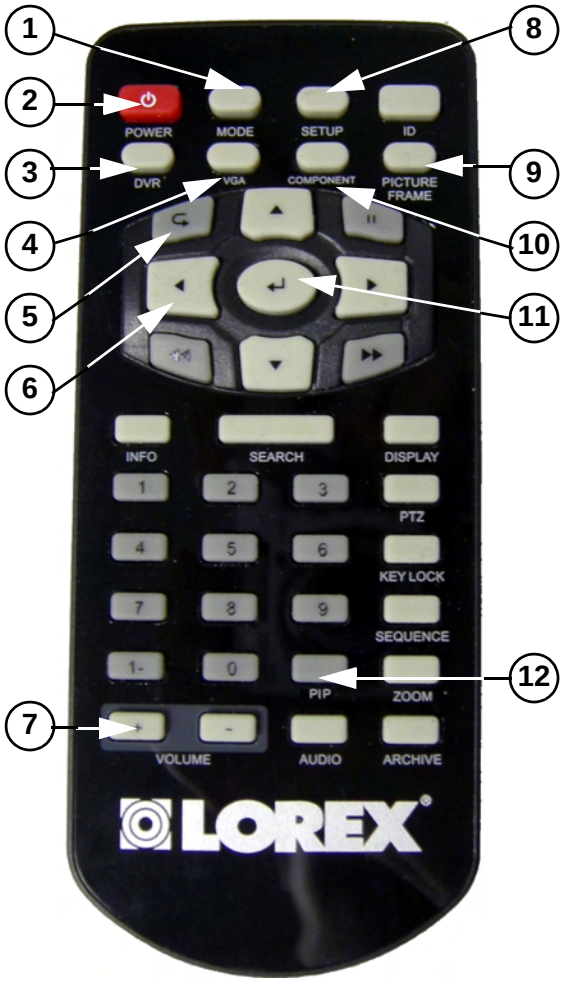
8. **MONITOR SETUP**: Displays the Monitor Setup Menu.

9. **PICTURE FRAME**: Change to Picture Frame Mode.

10. **COMPONENT MODE:** Change to Component Mode.

11. **ENTER BUTTON**: Press the Enter Button to select an option in the Monitor Menu. Also displays the DVR in PIP mode in the bottom right corner of the screen.

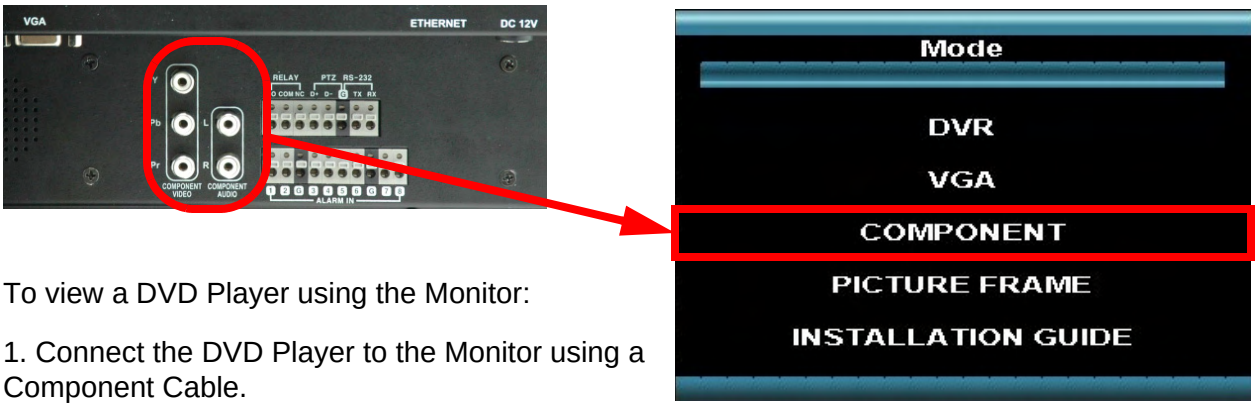
12. **PIP MODE**: Displays the DVR screen in the PIP Screen in the lower right corner.



1. Mode	7. Volume +/-
2. Power	8. Monitor Setup
3. DVR Mode	9. Picture Frame Mode
4.VGA Mode	10. Component Mode
5. Return Button	11. Enter Button
6. Navigation Controls	12. PIP Mode

Component Mode (Mode 3)

Component Mode is used to display a device connected to the Component green, blue, and red inputs (Y/Pb/Pr) in high resolution (i.e. DVD Player, Set Top Box or Satellite Receiver). The Audio from the Component Device is connected to the Red and White audio inputs located to the right of the Component inputs.

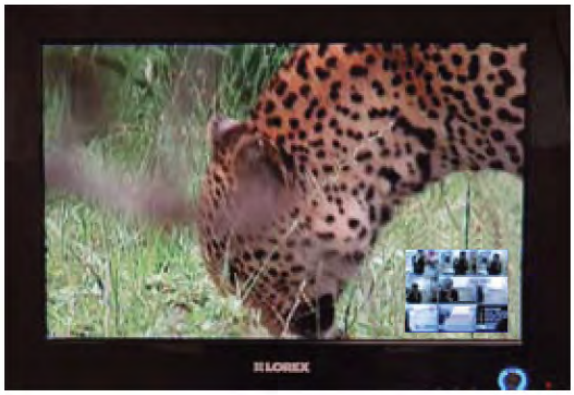


To view a DVD Player using the Monitor:

1. Connect the DVD Player to the Monitor using a Component Cable.

NOTE: Component Cables are not included with the system.

2. Switch the Monitor to Component Mode using the Multi Function Mode button on the front of the Monitor, or by pressing the Component Button on the Remote Control.



NOTE: Press the PIP button to display the DVR in the bottom right corner.

Setting Component (Component Mode) On Your DVD Player

Before using a DVD Player on the Component inputs of the Monitor, it is important to confirm that the DVD Player to be used has Component Outputs. Please refer to the manual for your DVD Player for details on activating the Component Mode.

NOTE: If the Component mode is not activated, you will see a color distortion (i.e. Pink colored screen). Your DVD Player Manual or menus may also refer to Component mode as ‘Composite Mode’ - these are the same function.

Component Mode - Remote Control Usage

Listed below is a quick reference for the Remote Control usage in Component Mode.

1. **MODE:** Press the Mode Button to display the Multi-Function Mode Menu.

2. **POWER**: Press the Power Button to turn off the Monitor Display. Press and hold the button for 3 seconds to shut down the entire system.

3. **DVR MODE**: Change to return to DVR Mode.

4. **VGA MODE:** Change to VGA Mode.

5. **RETURN**: Exits from a System Menu.

6. **NAVIGATION:** Press the Navigation Controls to move Up, Down, Left or Right in the Monitor Menu.

7. **VOL +/-**: Increase or Decrease the volume of the camera currently broadcasting live audio.

8. **MONITOR SETUP**: Displays the Monitor Setup Menu.

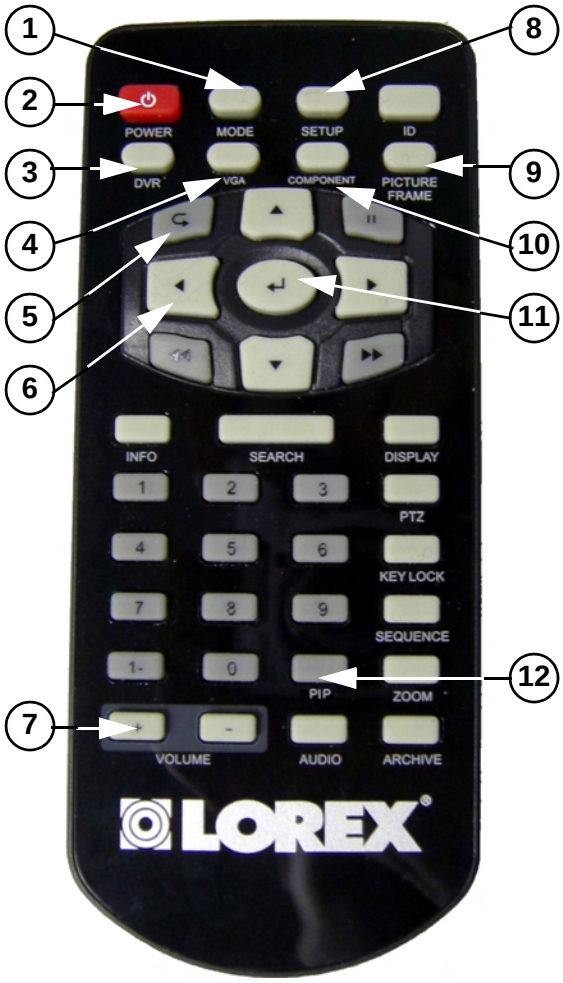
9. **PICTURE FRAME**: Change to Picture Frame Mode.

10. **COMPONENT MODE:** Change to Component Mode.

11. **ENTER BUTTON**: Press the Enter Button to select an option in the Monitor Menu. Also displays the DVR in PIP mode in the bottom right corner of the screen.

12. **PIP MODE**: Displays the DVR screen in the PIP Screen in the lower right corner.

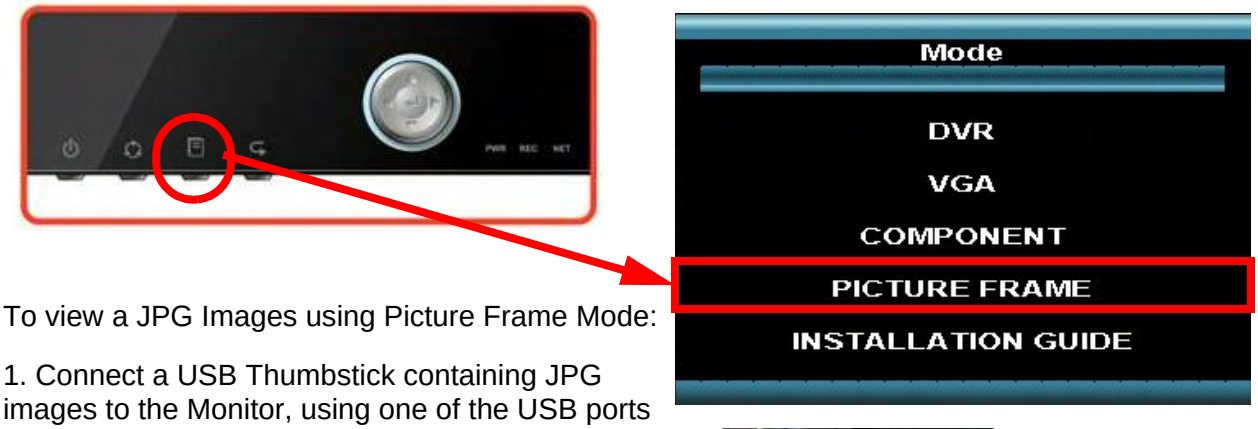
NOTE: The Remote Control cannot be used to control the DVD Player, Set Top box or Satellite Box.



1. Mode	7. Volume +/-
2. Power	8. Monitor Setup
3. DVR Mode	9. Picture Frame Mode
4.VGA Mode	10. Component Mode
5. Return Button	11. Enter Button
6. Navigation Controls	12. PIP Mode

Picture Frame Mode (Mode 4)

Picture Frame Mode is used to display JPG images located on a USB Thumbstick (connected to a USB Port on the side of the monitor).



To view a JPG Images using Picture Frame Mode:

1. Connect a USB Thumbstick containing JPG images to the Monitor, using one of the USB ports located on the side.

NOTE: A USB Thumbstick is not included with the system.

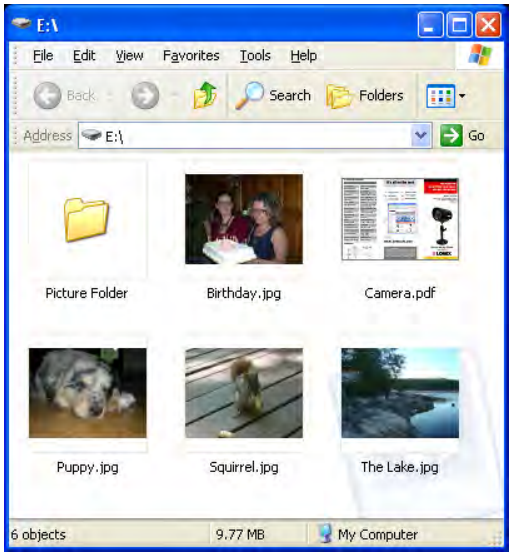
2. Switch the Monitor to Picture Frame Mode using the Multi Function Mode button on the front of the Monitor, or by pressing the Picture Frame Button on the Remote Control.

3. Configure the Picture Frame Menu to display the images.

USB Thumbstick Images

- Images must be in a jpg file format. All other files will not be recognized by the Monitor, including other Image formats (i.e. BMP, GIF) or other file types (i.e. in the example on the right, the system will not display the “Camera.PDF” file).
- Images must be in the root of the drive. Files located in folders will not be recognized by the Monitor (i.e. in the example on the right, any images located in the “Picture Folder” will not be displayed).
- The jpg files should be a minimum of 640x480 pixels, and **a maximum of 1600x1200 pixels** to maintain image quality. Images with less pixels may appear distorted or pixelated when displayed. Using images with a pixel size greater than the minimum recommended size is encouraged.

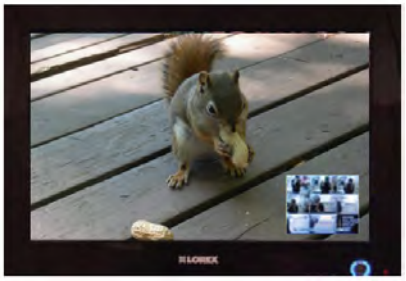
NOTE: An Image Resizing program has been included with the Software CD.



Picture Frame Display

Images will be displayed in Picture Frame Mode (based on the Menu settings).

NOTE: Press the PIP button to display the DVR in the bottom right corner.



Picture Frame Mode - Remote Control Usage

Listed below is a quick reference for the Remote Control usage in Picture Frame Mode.

1. **MODE:** Press the Mode Button to display the Multi-Function Mode Menu.

2. **POWER**: Press the Power Button to turn off the Monitor Display. Press and hold the button for 3 seconds to shut down the entire system.

3. **DVR MODE**: Change to DVR Mode.

4. **VGA MODE:** Change to VGA Mode.

5. **RETURN**: Exits from a Menu.

6. **NAVIGATION:** Press the Navigation Controls to move Up, Down, Left or Right in the Monitor Menu.

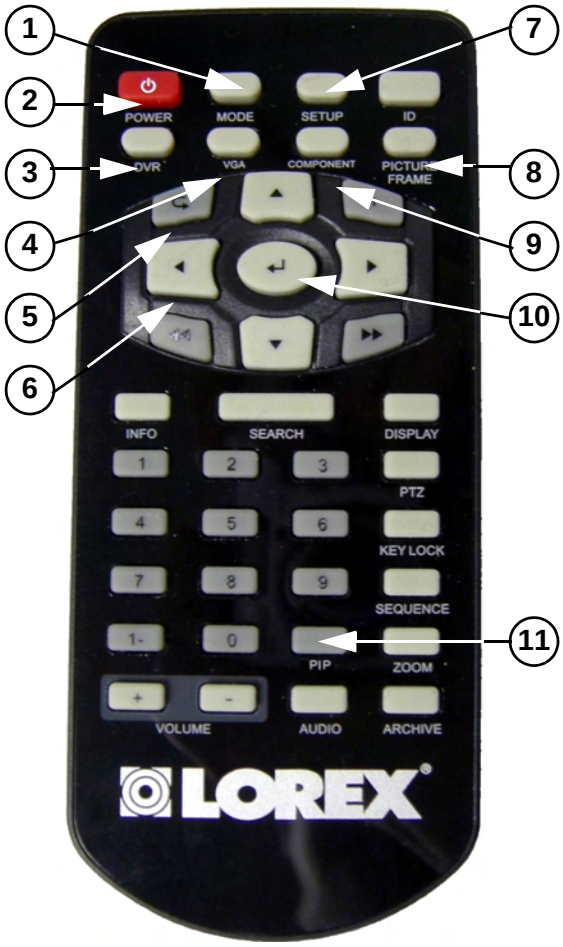
7. **PICTURE FRAME SETUP**: Displays the Picture Frame Setup Menu.

8. **PICTURE FRAME**: Change to Picture Frame Mode.

9. **COMPONENT MODE:** Change to Component Mode.

10. **ENTER BUTTON**: Press the Enter Button to select an option in the Monitor Menu. Also displays the DVR in PIP mode in the bottom right corner of the screen.

11. **PIP MODE**: Displays the DVR screen in the PIP Screen in the lower right corner.



1. Mode	7. Monitor Setup
2. Power	8. Picture Frame Mode
3. DVR Mode	9. Component Mode
4.VGA Mode	10. Enter Button
5. Return Button	11. PIP Mode
6. Navigation Controls	

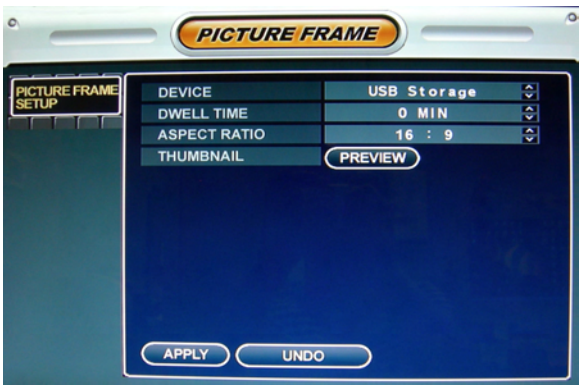
Picture Frame - Menu

Insert the USB Thumbstick into the USB Port on the monitor prior to starting Picture Frame Mode. If a USB Stick is not detected by the system, the following message occurs:

If the USB Stick does not contain *.jpg files, the following message will be displayed:

Picture Frame Settings

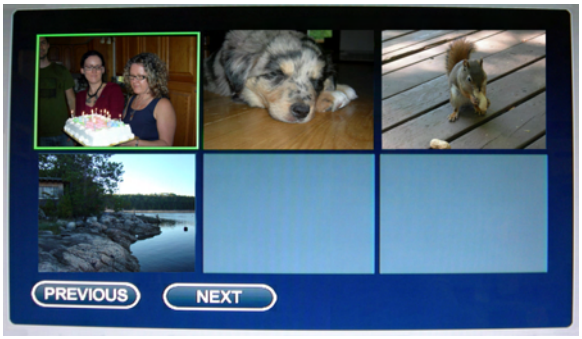
Once jpg images have been located on the USB Stick, the Picture frame menu will be displayed.



NOTE: To display the Picture Frame menu, press the MENU Button on the front panel of the System or on the Remote Control.

Picture Frame Settings Menu

- **Device**: Displays information about the currently connected Image Device (USB Thumbstick).
- **Dwell Time**: Set the time for each picture to be displayed onscreen (in sequence). The dwell time can be set between 0 minutes (leave one image onscreen at all times) up to 60 minutes.
- **Aspect Ratio**: Set the aspect ratio for display to 4:3 or 16:9.
- **Thumbnail**: Click the PREVIEW button to display the images on the thumbstick in a Preview Pane.



Use the Navigation Controls on the front panel or Remote Control, or use the mouse to select an image.

Click Previous or Next to scroll between screens containing the images on the USB Thumbstick.

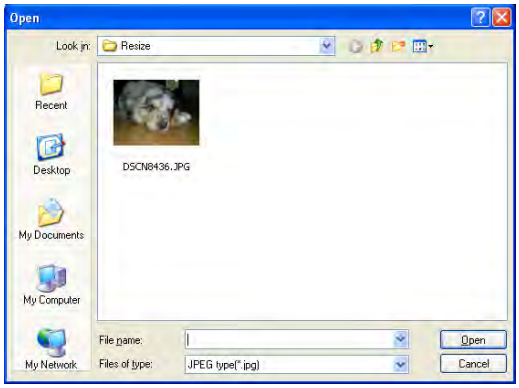
Press Enter to begin viewing in Picture Frame Mode.

Picture Resizing Application

An application has been included on the Software CD to resize your JPG images to 1600x1200 (highest recommended size), and save them directly to the USB Thumbstick.

1. Launch the application from the Software CD. The Picture Resize window will be displayed.

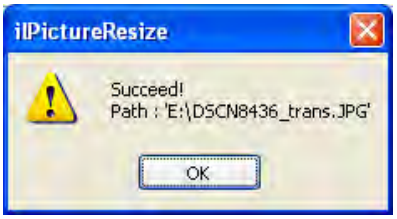
2. Click on the Source button to locate the directory where the JPG files are located. Select a file, and click on the Open button.

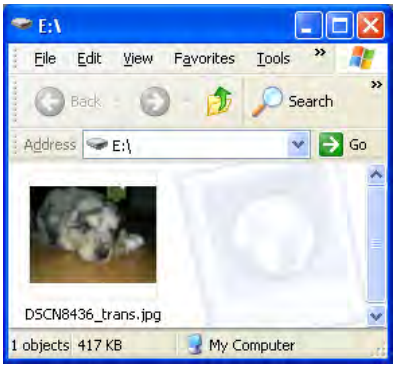


3. Click on the Target button to locate the directory where the JPG files are to be saved (i.e. Thumbstick drive).

4. Select a location, and click on the Open button.

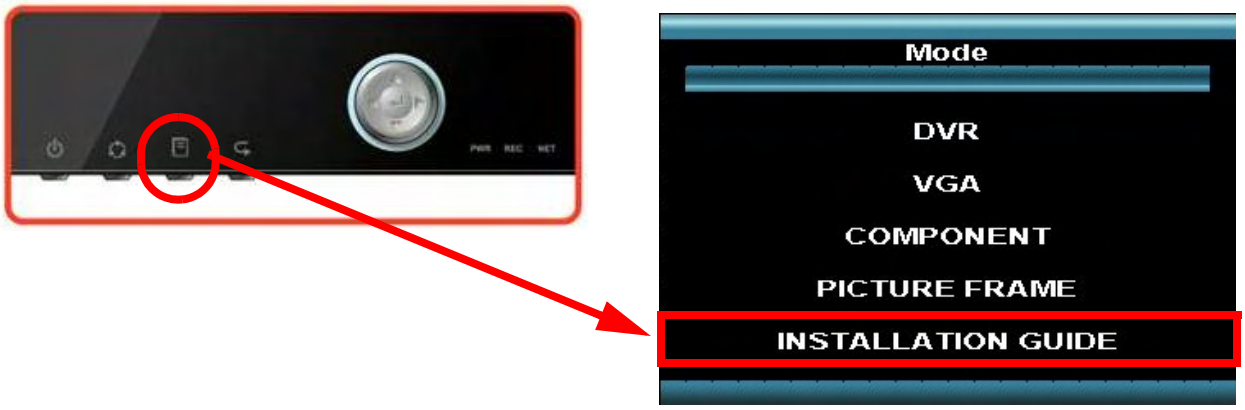
5. Once the Source and Target have been set, click the Execute button to resize and save the file. A Success message will be displayed.





Installation Guide Mode (Mode 5)

The Installation Guide Mode is used to display the Installation Video included on the System drive.



To view the Installation Video using the Monitor, press the Multi Function Mode button on the front of the Monitor, or press the Mode button on the Remote Control and selecting Installation Guide. You can pause, rewind and fast forward for step by step instructions using the remote control.

The Installation video was loaded onto the Hard Drive that was pre installed into the system. If you change the hard drive, the installation video will no longer be available. The video is also available on the Software CD provided with your system.

NOTE: The Installation Video is also located on the CD included with the system. The video can also be viewed online at http://www.lorexcctv.com/support in the Installation Guides section.

Installation Guide Mode - Remote Control Usage

Listed below is a quick reference for the Remote Control usage in Installation Guide Mode.

1. **MODE:** Press the Mode Button to display the Multi-Function Mode Menu.

2. **POWER**: Press the Power Button to turn off the Monitor Display. Press and hold the button for 3 seconds to shut down the entire system.

3. **DVR MODE**: Change to return to DVR Mode.

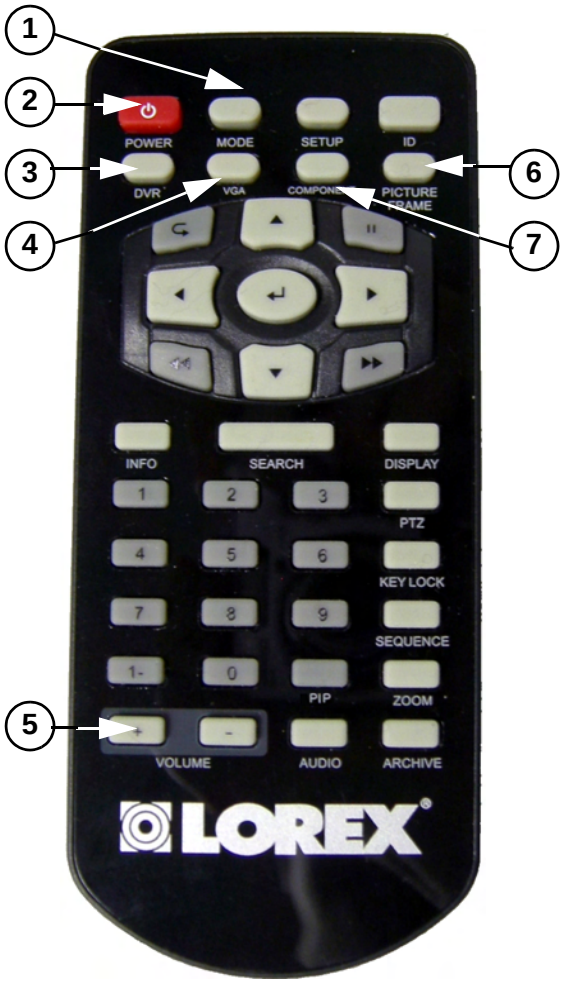
4. **VGA MODE:** Change to VGA Mode.

5. **VOL +/-**: Increase or Decrease the volume of the camera currently broadcasting live audio.

6. **PICTURE FRAME**: Change to Picture Frame Mode.

7. **COMPONENT MODE:** Change to Component Mode.

NOTE: The Remote Control cannot be used to control the Installation Video playback.



1. Mode	5. Volume +/-
2. Power	6. Picture Frame Mode
3. DVR Mode	7. Component Mode
4.VGA Mode	

Monitor - Menu Settings

Press the Setup key on the remote control, or front panel of the System to enter the Monitor Setup Menu (when in VGA or Component Modes). The Monitor Setup Menu controls the behavior and look of the Monitor (i.e. changing the Brightness and Contrast will affect the Brightness and Contrast in all Modes).

NOTE: The mouse cannot be used to change values in this menu.

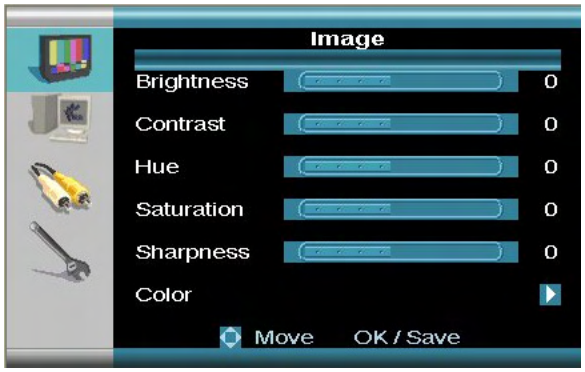


Image Settings

Use the Arrow keys on the Front Panel or Remote Control to select from Brightness, Contrast, Hue, Saturation, Sharpness or enter the Color submenu. Change the values using

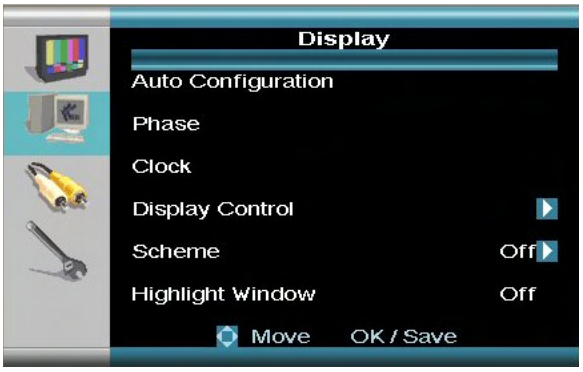
Color Submenu

- **Auto Color**: Select Auto Color to allow the system to set the color of the monitor. Select YES to allow the system to set the color, or NO to exit.

- **Color Temperature**: Set the Red, Green and Blue Values using the arrow keys.

- **sRGB**: Set the sRGB to ON or OFF.

Display Settings

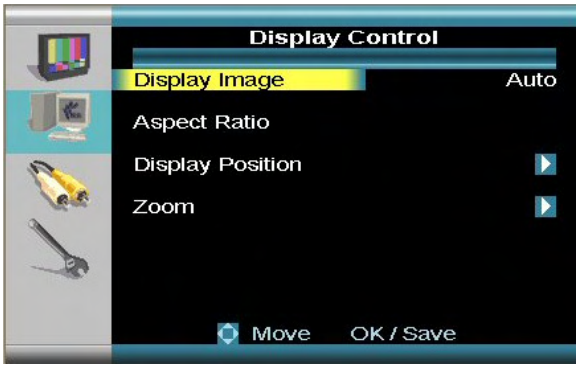


Use the Arrow keys on the Front Panel or Remote Control to select from Auto Configuration, Phase, Clock or Highlight Window. Use the enter key to access the Display Control or Scheme submenus. Change the values using the arrow keys and enter.

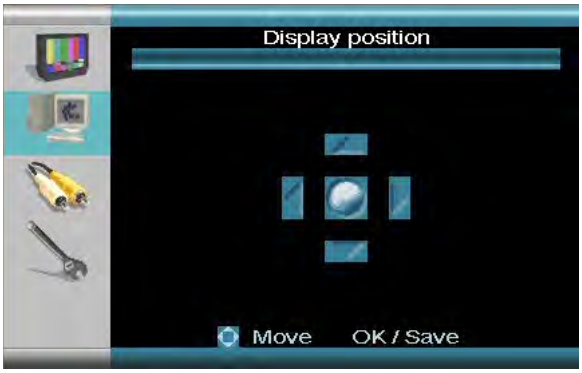
- **Auto Configuration**: Select Auto Configuration to allow the system to set the configurations of the monitor. Select YES to allow the system to set the color, or NO to exit.

- **Phase**: Set the phase for the system.
- **Clock**: Set the internal clock for the System.

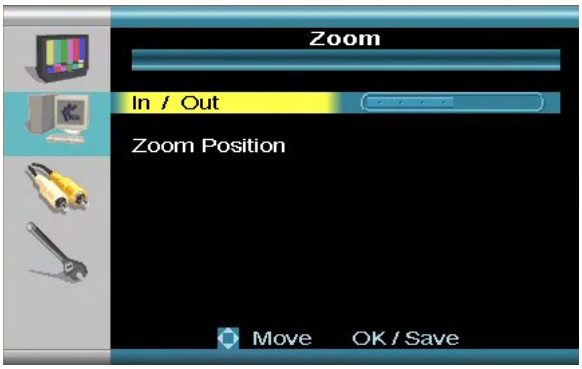
Display Control Submenu



- **Display Image**: Sets the image display to Auto or Manual.
- **Aspect Ratio:** Set the Aspect Ratio for the monitor.
- **Display Position**: Adjust the Horizontal and Vertical screen positioning.



- **Zoom**: Zoom the monitor display In or Out. Use the Set the Zoom Position option to change the location for the Zoom control.



- **Scheme**: Use the scheme controls to manually adjust the Red, Yellow, Green, Cyan, Blue and Magenta colors of the monitor.

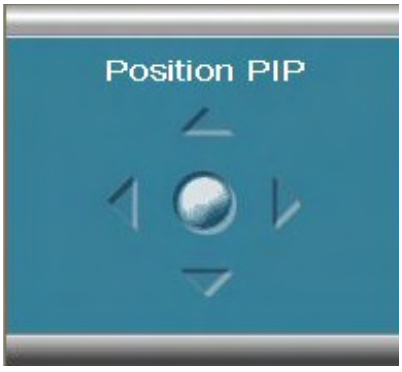
PIP Settings

Use the Arrow keys on the Front Panel or Remote Control to select from PIP, PIP Input Select, PIP Size and Blend. Use the enter key to access the PIP Position or Pip Color Control submenus. Change the values using the arrow keys and enter.

- **PIP**: Turns the display of the PIP (Picture in Picture) ON or OFF. If you turn the PIP to OFF, the default DVR screen will not be displayed when the PIP button on the remote control is pressed.
- **PIP Input Select**: Select the input type for the PIP. By default, the unit will display the DVR screen.
- **PIP Size**: Change the display size to Small, Medium or Large.

PIP Position Submenu

Use the Up, Down, Left and Right arrows to adjust the location of the PIP Screen. Press the Enter button to set, and the Return button to exit the menu.



PIP Color Controls Submenu

Use the Up, Down, Left and Right arrows to adjust the settings for Brightness, Contrast, Hue and Saturation. Press the Enter button to set, and the Return button to exit the menu.

Misc. Settings

Use the Arrow keys on the Front Panel or Remote Control to access the OSD Configuration or VGA Factory Reset submenus. Change the values using the arrow keys and enter.

PIP Position Submenu

Use the Up, Down, Left and Right arrows to adjust the settings. Press the Enter button to set, and the Return button to exit the menu.

- **OSD Timer**: Set the OSD Timer ON or OFF. If the timer is set to ON, the menu will automatically disappear after 30 seconds.
- **OSD Position**: Determines the position of the Onscreen Display window. Use the Up, Down, Left and Right arrows to adjust the location of the screen. Press the Enter button to set, and the Return button to exit the menu

- **OSD Transparency**: Set the transparency for the OSD Menu.
- **OSD Zoom:** Set the OSD Menu Zoom to ON or OFF.

VGA Factory Reset Submenu

Use the Factory Reset menu to return the Monitor settings to factory defaults.

System Specifications - Appendix #1

Monitor Specifications

- 20.1” Wide screen LCD with user selectable aspect ratio (Wide 16:9, Standard 4:3)
- Professional Grade High Resolution (1680x1050) LCD panel
- VGA Input - use your LCD Display as a PC monitor
- USB picture frame feature - display digital pictures from a USB flash drive
- Entertainment Component Video input (TV/DVD YPbPr)
- Spot Video Out supports a connection to another monitor to display video in a different location (e.g. Public View Monitor)
- Multiple control options: front panel buttons, remote control and mouse
- Tri-lingual On Screen Display (English, Spanish, French)
- Video Tutorial for camera installation and system set up
- Screen saver for energy efficiency
- Wall mountable (VESA standard)
- Stand with cable management solution
- Power Supply: 100VAC-240VAC, 12VDC, 5A, 60/50Hz
- Power consumption: Aprox. 60 W
- Weight: 8.7 kg / 19.3 lbs
- Dimensions: 21” X 14.4” X 2.7” / 532mm X 365mm X 67mm (Not Including Stand) 21” X 16.2” X 7.4” / 532mm X 433mm X 188mm (Including Stand)
- Environmentally friendly, recyclable packaging material

As our products are subject to continuous improvement, LOREX Technology Inc. and its subsidiaries reserve the right to modify product design, specifications and prices, without notice and without incurring any obligation.

E&OE

System Specifications - Appendix #1

DVR Specifications

- 8 Channels with Pentaplex operation - View, Record, Playback, Back Up &Remotely Control the system simultaneously
- MPEG4 Digital Video Compression - small file sizes without compromising video quality
- Recording Frames Per Second (FPS): 240/200 (NTSC/PAL) @ 352X240
- Recording Resolution: 704x480, 704x240, 352x240(NTSC), 704x576, 704x288, 352x288(PAL)
- Custom recording for each camera
- Covert Camera - record without displaying camera image
- Continuous Recording with Motion Event logging for easy event searching
- Selectable 4 channel audio recording
- Programmable motion detection
- Pre-Event Recording of a preset amount of time before motion triggers the recording to see activities leading up to an event
- 320GB Hard Drive with SATA interface, 100% duty cycle for optimal performance in the commercial video security market. Expandable up to 750GB4
- S.M.A.R.T HDD Support (Self-Monitoring Analysis and Reporting Technology): Auto Detection / Recovery to ensure the HDD is functioning properly at all times
- Supports external USB: Hard Drive, Optical Drive (DVD-RW, CDRW) and USB Thumbstick
- Scheduled back up to an external USB storage and Network Storage Using FTP
- 8 Programmable Alarm Inputs, 1 Relay Alarm output
- Pan/Tilt/Zoom Camera Control: RS-485 interface
- Network Protocol: TCP/IP, DDNS and Web

System Software

- Remote monitoring software supporting multiple sites with full remote control over the Internet or Local Area Network (LAN)
- Internet Remote Functions: Live View, Live Recording, Search, Set-up, Back-up
- Firmware Upgrade over network
- Email alerts with a web browser link
- Microsoft Windows Vista™ Compatible Software (included)

Lorex Client 4.0 Software Requirements - Appendix #2

The Lorex Client 4.0 software (included with the System) has the following installation requirements.

Minimum System Requirements:

Operating System	Windows 2000 Windows XP Home Edition Windows XP Professional Windows Vista (32-bit)
Processor	Pentium 4 - 1.5 GHz Processor (or equivalent)
Memory	512 MB RAM
Hard Drive	50 MB - Installation space required ***** Additional Hard Drive space required for recording. Recorded file size will vary depending on recording quality settings

Recommended System Requirements:

Operating System	Windows XP Home Edition Windows XP Professional Windows Vista (32-bit)
Processor	Pentium 4 / 3 GHz Processor (or equivalent)
Memory	1024 MB RAM
Hard Drive	50 MB - Installation space required ***** Additional Hard Drive space required for recording. Recorded file size will vary depending on recording quality settings

Please refer to the Lorex Client 4.0 Software User Guide included with your System for further details.

Visit the Lorex support website at **http://www.lorexcctv.com/support** for information on the latest software and consumer guides.

Setting up Remote Viewing - Appendix #3

Setting up the Remote Viewing Feature requires several steps. Networking skills are required to correctly configure the remote viewing functions.

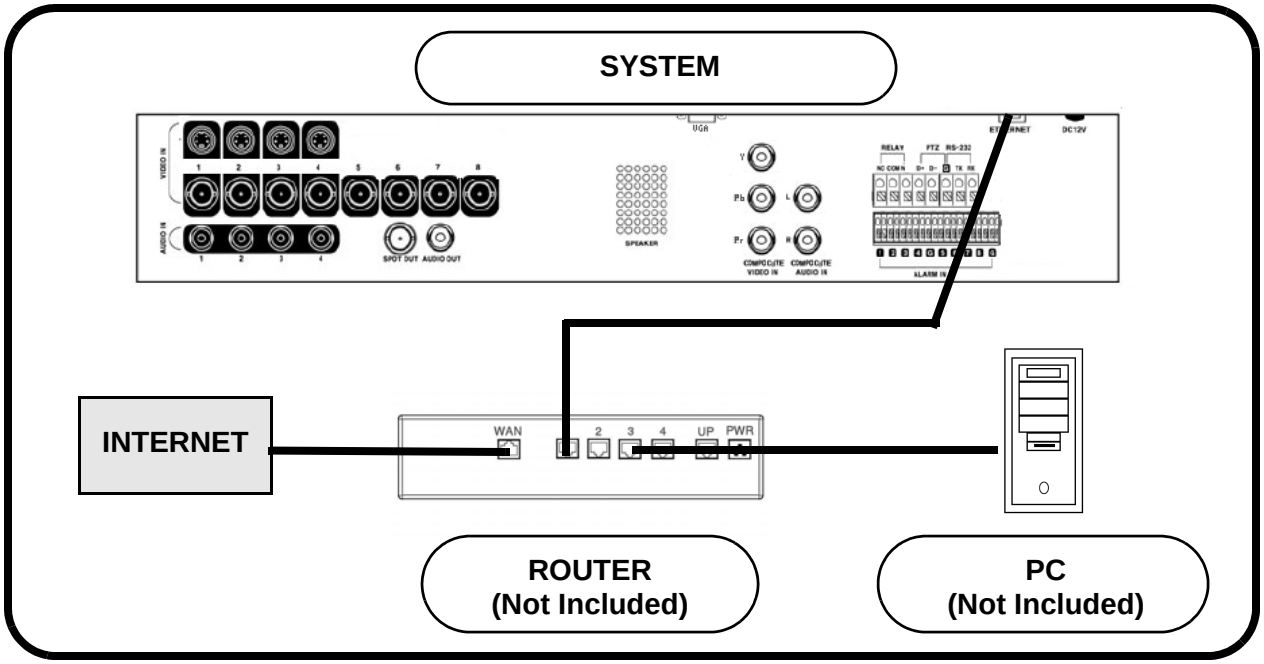
What do you need?

- The LCD/DVR System.
- A PC with the installed with the Lorex Client 4.0 software (refer to the Software Guide for installation instructions)
- A Router (not provided with the system) and High Speed Cable or DSL Internet Connectivity (for remote viewing outside your network)

Network Setup / Remote Access Overview

The System can be remotely controlled using your existing network and the Lorex Client 4.0 software or Internet Explorer.

1. Connect the System to the Router using the supplied Ethernet Cable. Power the System on. The System must be connected to the router prior to powering on the system. This allows the system to communicate on your network



2. Find the IP address of your System through the Menu System on the unit.
3. Enable **PORT FORWARDING** on your Router. Refer to the included Router Guide and Basics of Remote Video Access Guide for further assistance with your specific network setup and hardware.
4. Set up a web account at **http://www.lorexddns.net**.
5. Setup the System DDNS.
6. Configure the software, using the information gathered on the following pages.

Network Checklist

The following checklist is provided to assist you in confirming that all steps have been successfully performed during Network Setup. Use this checklist in conjunction with the steps outlined on the following pages.

☐ 1. I have the following:

- ☐ • High Speed Internet
- ☐ • A Router
- ☐ • The Ethernet Cable provided with this system
- ☐ • The System
- ☐ • A PC with the Remote Access software installed

☐ 2. I have confirmed that my System is set to automatically complete my Network settings (DHCP is set to ON):

- ☐ • Press the SETUP button on the Front Panel -or- Press SETUP on the Remote -or- Right Click on the screen and select the SETUP option.
- ☐ • Select the System Setup option
- ☐ • Select the System option
- ☐ • Select the Network Menu. Confirm that the options for both DHCP and DDNS have checkmarks in the boxes.

☐ 3. I have turned off the System, and performed the following:

- ☐ • Connected the Ethernet Cable to the back of the System
- ☐ • Connected the other end of the Ethernet Cable to my Router

NOTE: Network Setup will not work if you do not have a router

☐ 4. I have found my System Information by either Pressing the ENTER button on the Front Panel -or- Pressing the INFO button on the Remote Control:

- ☐ • My IP Address is: _____
- ☐ • My MAC Address is: _____

NOTE: If your IP address is showing as **127.0.0.1**, please return to Step 1 and review all menu settings. Check to make sure that your Ethernet cable is properly connected to your Router and System.

☐ 5. I have enabled PORT FORWARDING on my Router for:

- ☐ • Port 80
- ☐ • Port 6100

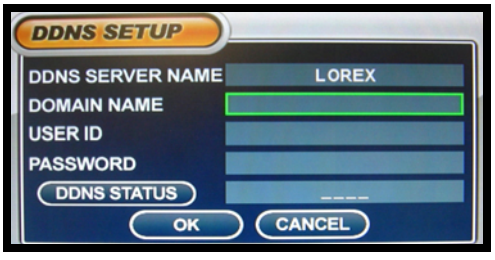
NOTE: Each Router is different, therefore the port forwarding settings will vary by model. Please visit us on the web at http://www.lorexcctv.com/support for assistance with several of the most common router types. If your router is not listed, please refer to the manual that came with your Router, or your Router manufacturer for assistance.

☐ 6. I have configured the DDNS for remote access to my system at http://www.lorexddns.net, and my configuration information is:

- ☐ • Username: _____
- ☐ • Password: _____
- ☐ • Domain Name: _____

☐ 7. I have configured my System to connect to the DDNS Server by completing my Network settings:

- ☐ • Press the SETUP button on the Front Panel -or- Press SETUP on the Remote -or- Right Click on the screen and select the SETUP option.
- ☐ • Select the System Setup option
- ☐ • Select the System option
- ☐ • Select the Network Menu.
- ☐ • Select the DDNS Server option, and use your information to complete the DDNS Configuration:
  - DDNS Server Name: Lorex (default)
  - Domain Name: Enter the name you set for the DDNS web configuration.
  - User ID: Enter your user ID
  - Password: Enter your password



- ☐ • Click the DDNS Status button to confirm the connection details.
- ☐ • A success message will appear, and the system will restart.

☐ 8. Configure the Remote Access Software:

- ☐ • If you are connecting from within your network (i.e. The System and your PC are both inside your house), you only need to enter the IP address of the System into the software (i.e. 192.168.0.105)
- ☐ • If you are connecting from outside your network (i.e. The System is at Home, and your PC is at work), use the DDNS Domain Name to configure the software).

System - IP & MAC Address

The IP & MAC Addresses are necessary for DDNS Setup (for remote access to the System).

To Locate the System information, Press the ENTER button on the Front Panel or Info on the Remote Control while viewing the Cameras. The System Info window will be displayed.

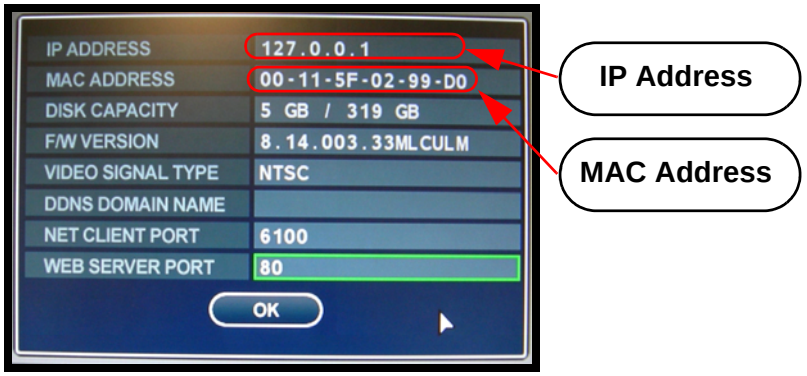
- OR -

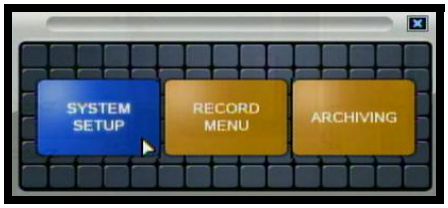
1. Press the Menu Button on the Front Panel or Remote Control, or right click with the mouse to access the Setup Menu. Select the System Setup option and press the Enter button.

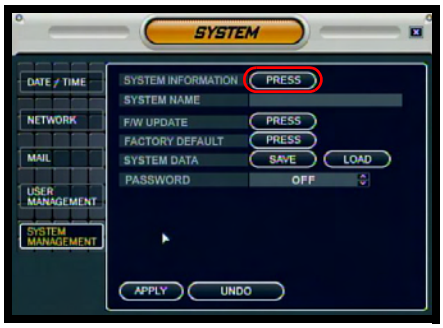
2. Navigate to the System Menu option. Press the Enter button to access the System Menu.

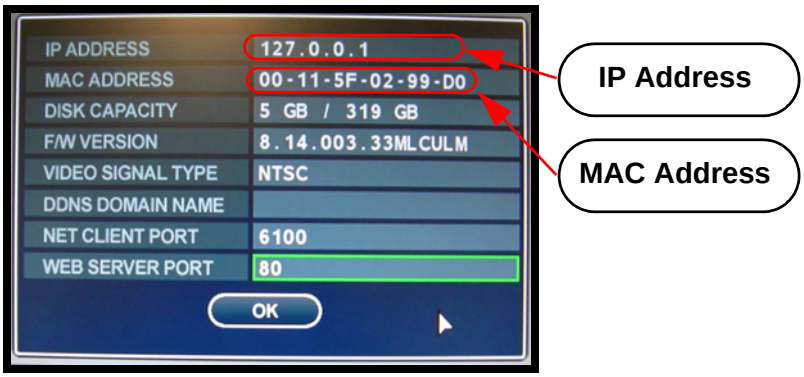
3. Navigate to the System Management menu, and press the Enter Button to access the settings.

4. Select the System Information option, and press the Enter Button to display the System Settings.









NOTE: Your IP address should look similar to 192.168.0.105, 10.0.0.105, etc. If your IP address is showing as **127.0.0.1**, please review all menu settings, and check to make sure that your Ethernet cable is properly connected to your Router and System.

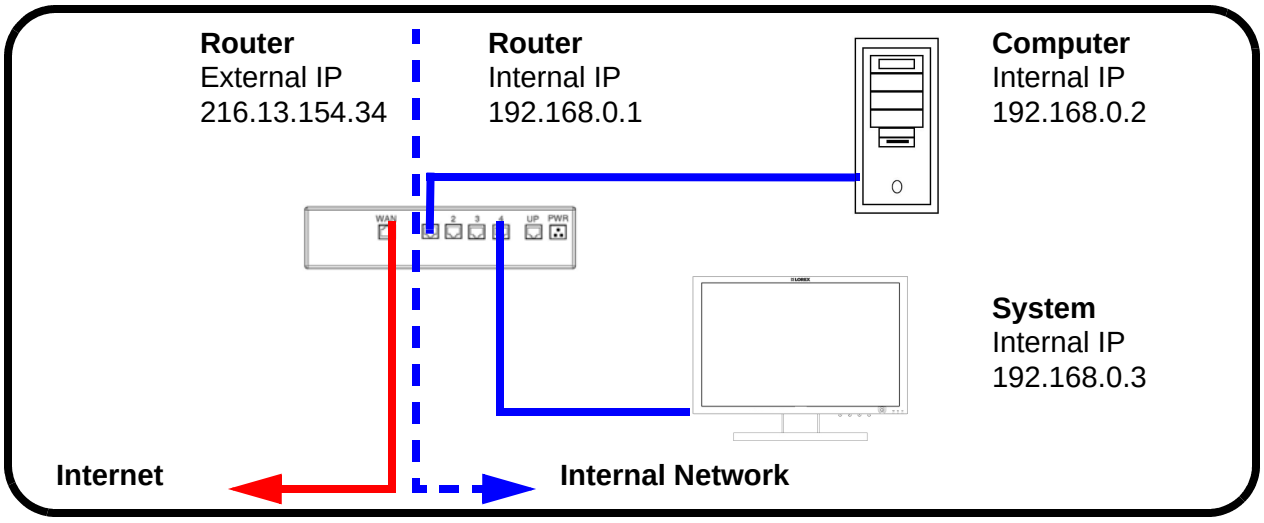
Network - Router Port Forwarding

You will need to enable port forwarding on your Router to allow for external communications with your System for ports:

- TCP/IP PORT 6100
- WEB PORT 80

Computers, Systems, and other devices inside your network can only communicate directly with each other within the internal network. Computers and systems outside your network cannot directly communicate with these devices. When a system on the internal network needs to send or receive information from a system outside the network (i.e. from the Internet), the information is sent to the Router.

NETWORK EXAMPLE



When a computer on the Internet needs to send data to your internal network, it sends this data to the external IP address of the Router. The Router then needs to decide where this data is to be sent to. This is where setting up Port Forwarding becomes important.

Port Forwarding tells the router which device on the internal network to send the data to. When you set up port forwarding on your Router, it takes the data from the external IP address:port number and sends that data to an internal IP address:port number (i.e **Router External IP 216.13.154.34:6100 to System Internal IP 192.168.0.3:6100**).

The instructions found online in the **Router Configuration Guide** will assist you in the port forwarding configurations for a selection of different router models.

Visit our **Consumer Guides Support** website at **http://www.lorexcctv.com/support** for details

Web - Finding Your External IP Address

You will need to have your External IP address to set up your **DDNS** account. One of the fastest ways to find this information is to use a 3rd Party website such as **http://www.showmyip.com**

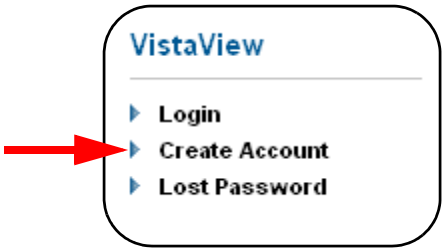
Your IP address can also be found within your Router settings. Refer to your router user guide for further details.

Network - Setting Up Your DDNS Account

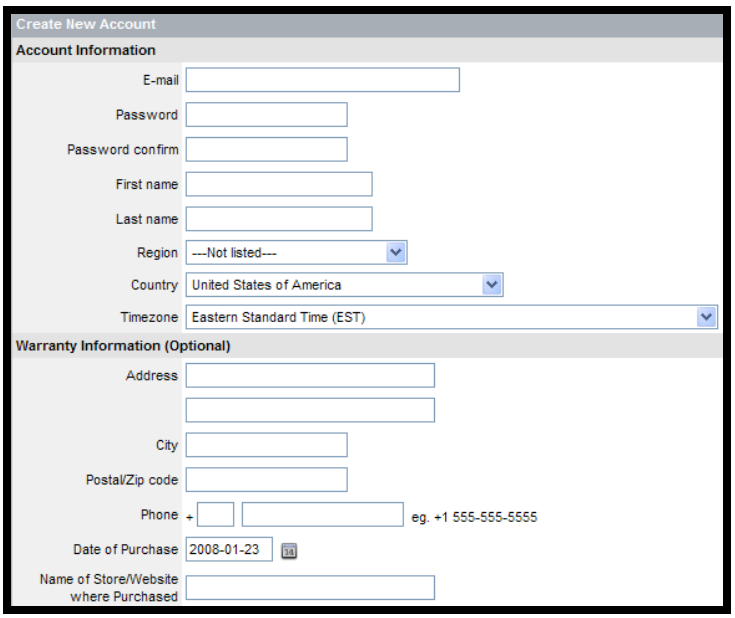
Lorex offers a free DDNS service for use with your System. A DDNS account allows you to set up a web site address that points back to your Local Network. The following outlines how to set up your free DNS account.

1. Navigate to **http://www.lorexddns.net**

2. Select the **Create Account** option from the list on the left side of the screen.

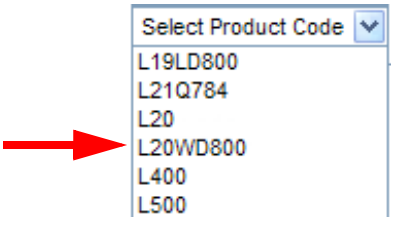


3. Complete the **Account Information** fields with your personal information. Complete the **Warranty Information** with your purchase details.



4. Complete the **System Information** fields:

- **Product License**: Select your product model from the **Product License** drop down menu
- **<Product Code> - <MAC Address>**: Locate the MAC address of your (recorded while loading the System)
- **URL Request**: Choose a **URL** for your **DDNS** connection (i.e. your name, your company or business name, or anything of your choice.)



NOTE: Make sure to write down your information **BEFORE** clicking on the Create New Account link. This information is important for your System Setup.

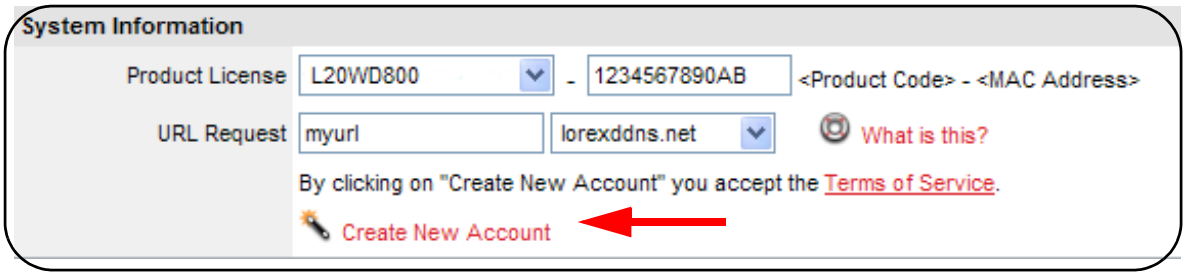
User Name: _____ *

Domain Name: _____

Password: _____

* Only the first part of the Domain Name is required for setup on the System. If the full Domain sent is myurl.lorexddns.net, the unit only requires that only **myurl** be entered.

5. Click the **Create New Account** link at the bottom of the form to submit your request.



6. Your **Account** information will be sent to you at the **E-mail Address** you used in **Step 3**.

DDNS Server Name:	LOREX
Domain Name:	myurl
User ID:	tomsmith1
Password:	(your password)

You will need this information for remote access to your System. Remember to record ***YOUR*** information before clicking on the Create New Account link.

There are two ways to find your DDNS Configuration information at a later date.

1. Review the Email sent to you by Lorex:

Dear A,

Thank you for activating your free Dynamic DNS account for your Lorex DVR Combo. Once you have set up your Lorex device and configured your network, you will be able to view your video images from anywhere in the world using the URL shown at the end of this message.

When you visit the Lorex web site at: https://secure.lorexddns.net/webapp

Your account name is: aa321
Your account password is: 1111
Your Lorex license number is: L20WD800-AAAAAAAAAAAA

You can visit this site to change your account information and to set up additional Lorex devices.

Set up the Lorex DVR Combo to use this service as follows:

On the monitor console (or from the remote control) press the set-up button. Select the 'DDNS Server' option under network. Enter the following settings:

DDNS SERVER NAME: LOREX
DOMAIN NAME: cats
USER ID: aa321
USER PASSWORD: [1111]
DDNS STATUS: -------

OK CANCEL

Press DDNS STATUS button and wait for the message 'SUCCESS'. If the message returns 'SUCCESS' press OK and press the return button to exit the menu (when you do, the DDNS set up for the first time system will prompt you to save the changes and restart the system).

Note: if you receive a failed message, please check the information that you have entered.

For more information please refer to the remote client manual.

*** Important ***
Please note that normal latencies in the update protocol and Internet propagation delays require you to wait between 5 and 15 minutes and sometimes even longer for your network URL to become fully available and operational over the Internet. This is normal for the DDNS system. Attempting to use the URL within the first 5 minutes of registration may also prolong the URL update time.

The URL for accessing your video is: holycats.lorexddns.net. When setting up the Lorex client software for remote access, use this URL in place of the IP Address.

If you have decided to use the free Lorex Email Service (default option) for any system event notifications and alerts, you must register with lorexddns.net and activate the DDNS option in the System's Set Up / Network menu. Alternatively, you can use your own email service by disabling the default mail service and entering your personal mail server information in the System's Set Up / Mail menu.
Thank you for choosing Lorex.

Sincerely,

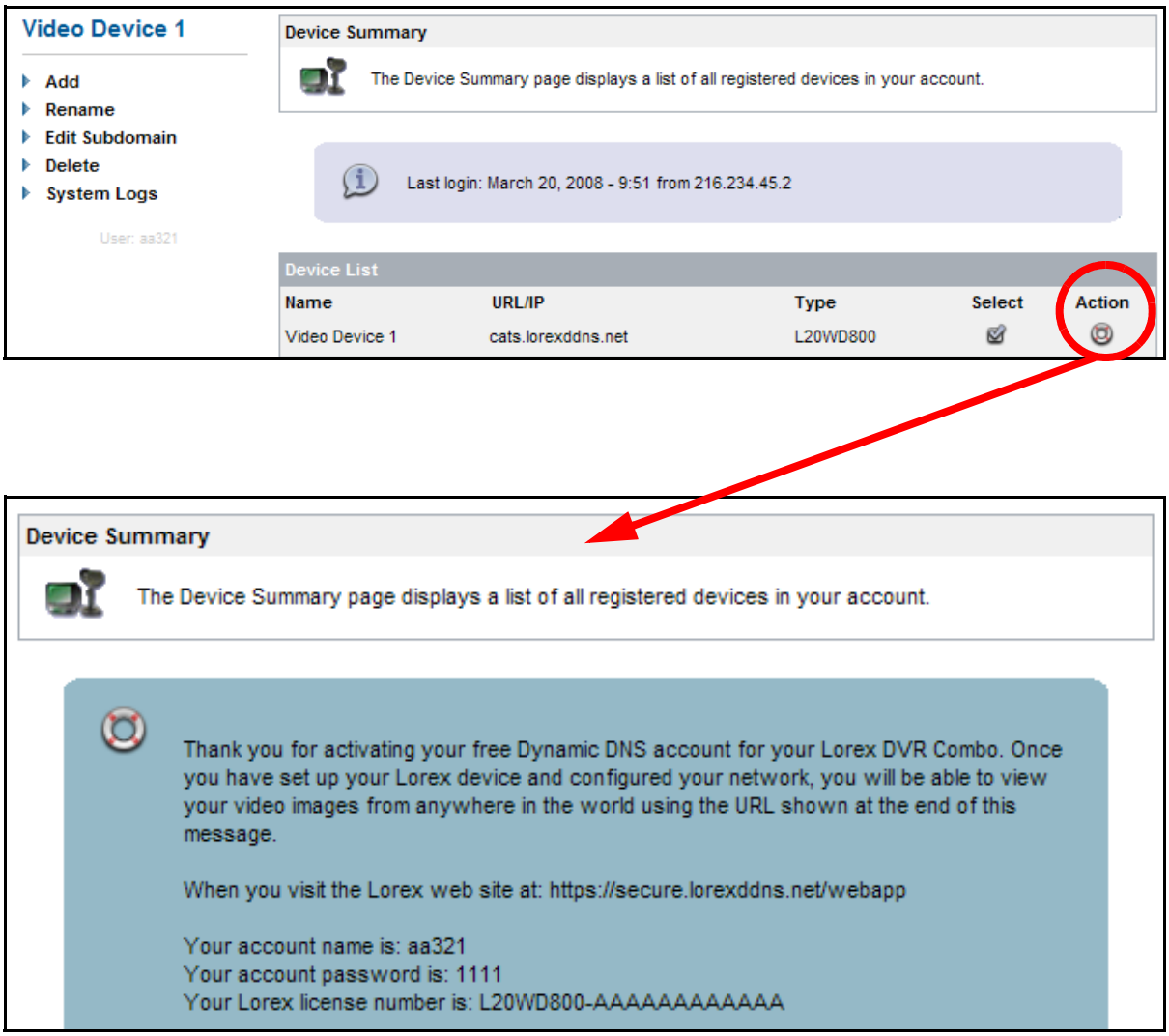
Lorex Customer Support

NOTE: If you entered an incorrect Email address when setting up the DDNS, you will NOT receive this email. To review the email, you must log into the DDNS Website.

In order to receive email alerts, you must register your system with the Lorex DDNS, or alternatively change your default mail settings (see Appendix #4).

2. Log into the Lorex DDNS Website at http://www.lorexddns.net and enter your Username and Password.

Click the **ACTION** button located on the console to display a copy of the Configuration email:

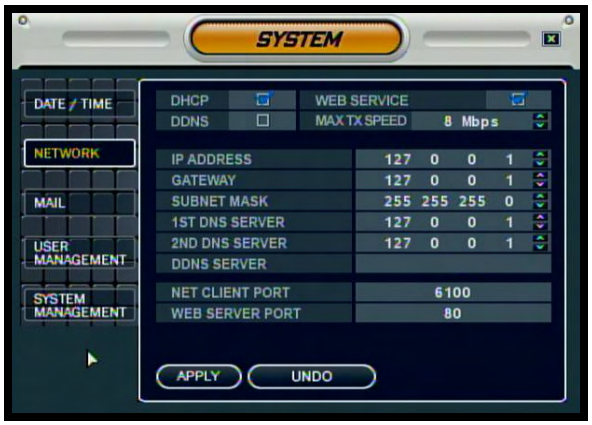

Video Device 1
Add
Rename
Edit Subdomain
Delete
System Logs
User: aa321
Device Summary
The Device Summary page displays a list of all registered devices in your account.
Last login: March 20, 2008 - 9:51 from 216.234.45.2
Device List
Name
URL/IP
Type
Select
Action
Video Device 1
cats.lorexddns.net
L20WD800
Device Summary
The Device Summary page displays a list of all registered devices in your account.
Thank you for activating your free Dynamic DNS account for your Lorex DVR Combo. Once you have set up your Lorex device and configured your network, you will be able to view your video images from anywhere in the world using the URL shown at the end of this message.
When you visit the Lorex web site at: https://secure.lorexddns.net/webapp
Your account name is: aa321
Your account password is: 1111
Your Lorex license number is: L20WD800-AAAAAAAAAAAA

System - DDNS SETUP

Once the DDNS settings have been configured online, the information must be entered on the System to allow for remote connection via the Lorex Client 4.0 Software (or through Internet Explorer):

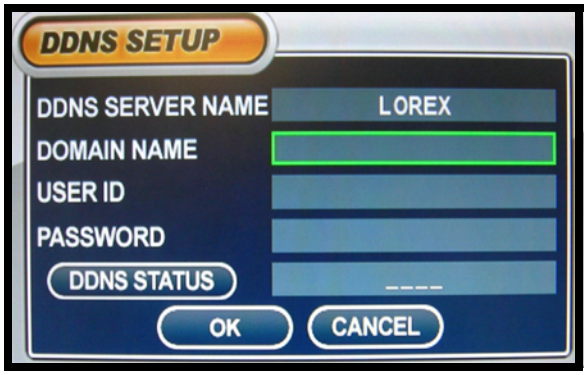
1. Access the Main Menu Setup screens, and navigate to the **SYSTEM** option. Press the ENTER button to access the setup.

2. Navigate to the **NETWORK** option. Press the Enter button to access the Network settings. Select the DDNS Server option, and press the ENTER button to enter the **DDNS SETUP.**



3. Enter the information received in email (including the password). Press the DDNS Status first - wait for the SUCCESS MESSAGE (as long as the information is correct).

   Select OK to save the settings.



The System will restart to activate the new configuration.

NOTE: Once all Network settings are configured, the System can be accessed using the Lorex Client 4.0 Software.

Lorex Client 4.0 Software - Connection Manager

The Connection Manager contains the setup information to allow the user to remotely connect to the System.

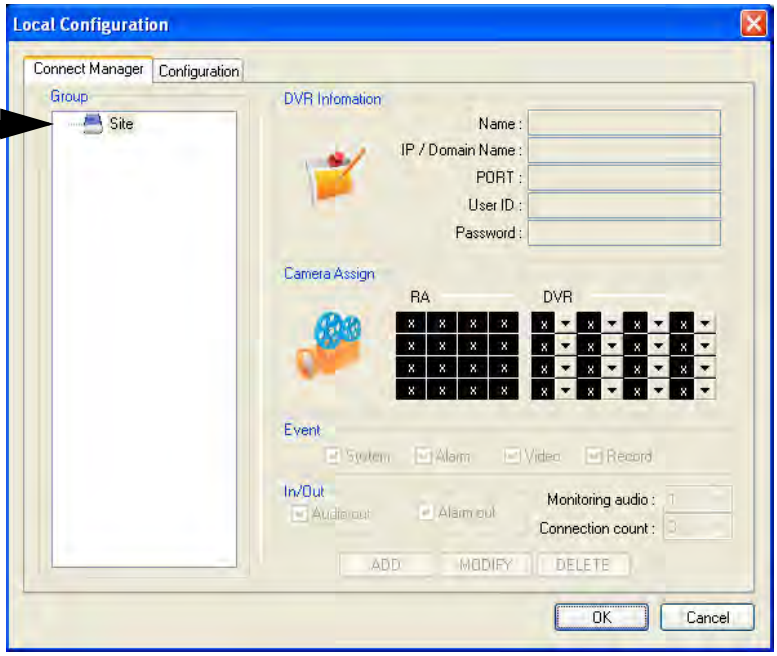
Adding a Group

Group - Right click on 'Site' to add a New Group.

A group can represent one or more Systems.

For Example, you may have more than one system in your office, so would name your group 'OFFICE'.

Each individual unit can then be configured separately for connection.

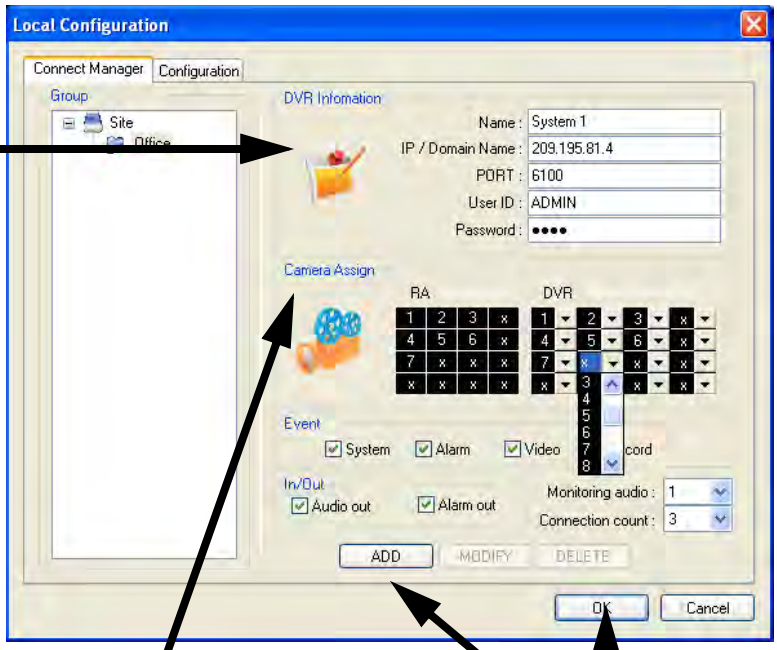


Enter a name for the Group.

Adding a Site (Individual Unit Configuration)

DVR Information - Enter the information specific to the unit (refer to page 30 for setup instructions):

- **Name** - Enter a name for the unit.
- **IP / Domain Name** - Enter the IP address or Domain Name for the System. This will vary depending on setup (Internal Network Connection or External Remote access through the Internet)- refer to page 30 for setup details.
- **Port** - Set to 6100 by default.
- **User ID** - Enter the USER ID to connect to the system (the USER ID is configured on the System - i.e. ADMIN - case sensitive).
- **Password** - The password used to access the System (i.e. The ADMIN password is set to 1234 by default).



Camera Assign - Set each camera to a portion of the 9-view window by using the drop down menu selections.

ADD Button - Adds the site to the Group.
OK Button - Accepts the changes and Closes the configuration Window

NOTE: When entering the information for the **IP / DOMAIN NAME**:

- If you are connecting from within your network (i.e. The System and your PC are both inside your house), you only need to enter the IP address of the System into the software (i.e. 192.168.0.105)

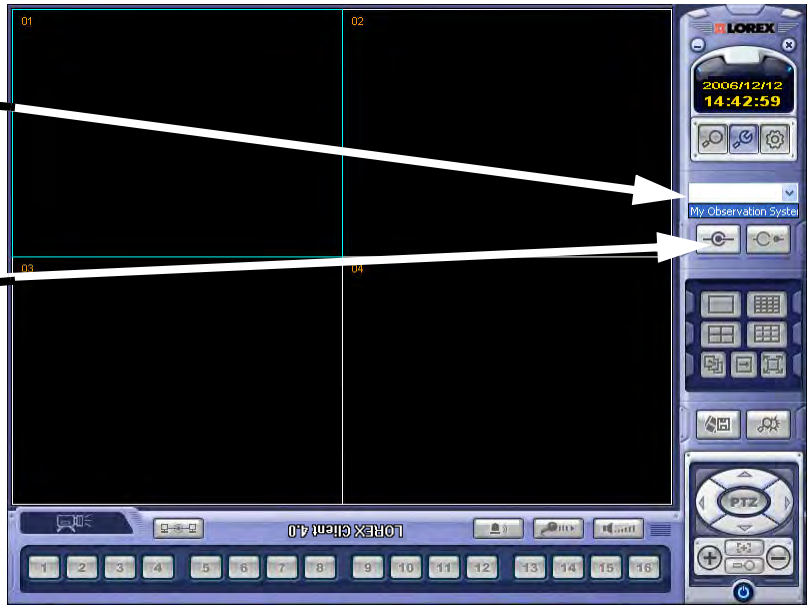
- If you are connecting from outside your network (i.e. The System is at Home, and your PC is at work), use the DDNS Domain Name to configure the software).

Lorex Client 4.0 Software - Remote Connection

Once the site setup profile has been created, a connection can then be made to the System:

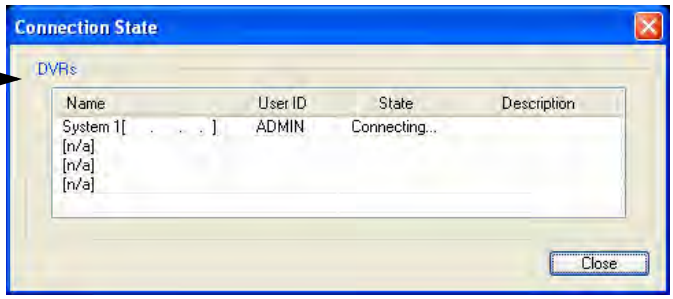
1. Select the Site profile from the Dropdown List.

2. Press the CONNECT button.

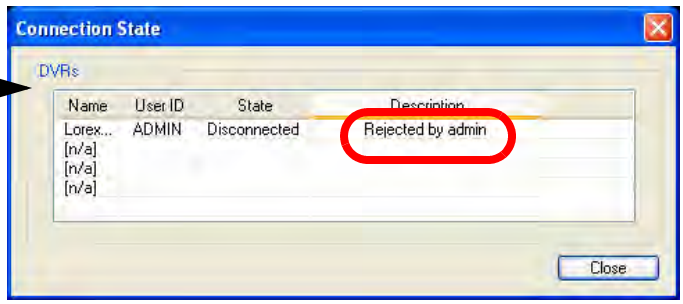


The Connection Status window displays the state of the connection.

Once a successful connection to the System has been made, the black screen view will switch to Live Camera View mode.



NOTE: If another user is connected to the System using the same credentials (i.e ADMIN), the connection will be rejected.



Using the Auto Email Feature - Appendix #4

Setting up Email

This System has the ability to automatically send email when an event is detected. To configure the automatic sending of Emails, the following Menu option setup is required:

- System Menu - Mail
- System Menu - User Management
- Event/Sensor - Email Notification

System Menu - Mail

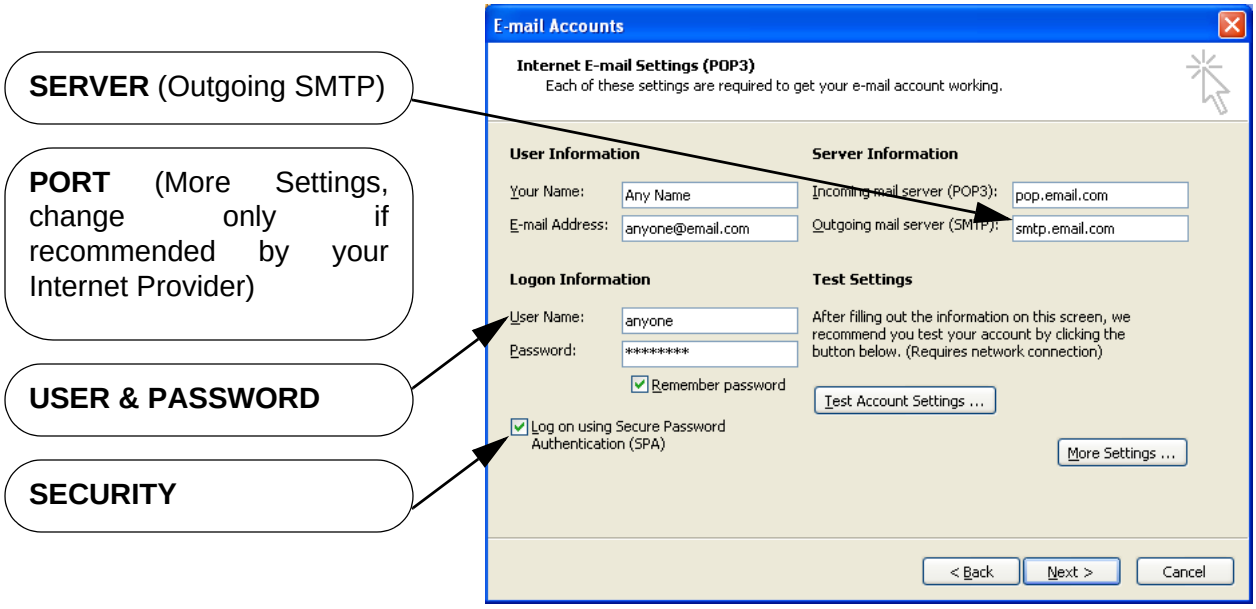
Navigate to the System Menu, and select the Mail Option.

NOTE: All settings that are completed in the Mail section are for OUTGOING MAIL (i.e. The same settings that you use to send mail through Outlook or any other mail program. There are two ways to configure these settings:

- Configuration using the Lorex Mail Server. Make sure the box is checked, and you will not need to enter any additional information, however **YOU WILL BE REQUIRED** to set up your system on the Lorex web based DDNS at http://www.lorexddns.net to use the default mail server -OR-
- Configuration using YOUR mail server settings. The Settings needed for this configuration can be found by contacting your Internet Provider, and asking for your 'Outgoing Mail Settings'.
    - **Default Server** - Uncheck to use YOUR mail settings.
    - **SMTP Server** - Enter the Email server information for your ISP.
    - **Port** - Default port of 25
    - **Security** - Sets the Mail Security ON/OFF (based on the requirements of the mail provider).
    - **User** - Enter the User Name.
    - **Password** - Enter the User Password

NOTE: The Virtual Keyboard appears when entering the Mail Setup information.

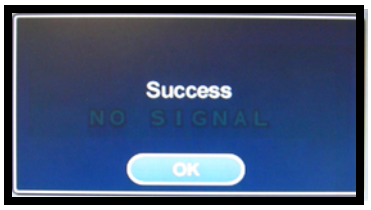
This is an example of the same type of required settings (formatted for Microsoft Outlook).



NOTE: This example is not required for the System to function correctly. This is used to illustrate the required settings (using another program).

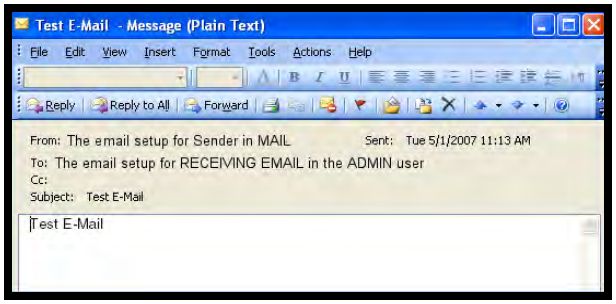
Testing the Mail Setup

Press the TEST E-MAIL Button on the System. A window will appear indicating a Success or Fail for the connection.



Test Results in Email

You will receive the following in an Email message upon successful completion of the Testing portion.


Test E-Mail - Message (Plain Text)
File Edit View Insert Format Tools Actions Help
Reply Reply to All Forward
From: The email setup for Sender in MAIL
Sent: Tue 5/1/2007 11:13 AM
To: The email setup for RECEIVING EMAIL in the ADMIN user
Cc:
Subject: Test E-Mail
Test E-Mail

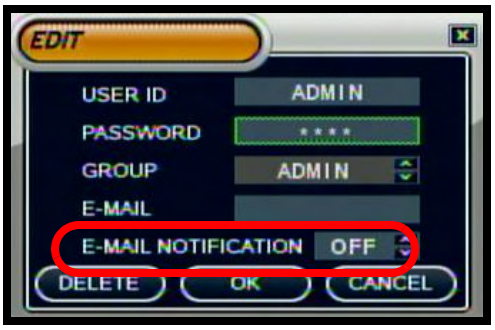
System Menu - Mail

Navigate to the System Menu, and select the Mail Option.

New users can be added to the System through the User Management screen, and existing users can be edited.

The important features in the User Setup are the E-Mail address and E-Mail Notification:

- Set the E-Mail to the desired Receiving Address.
- Set the E-Mail Notification to ON. This must be set ON for the user to receive mail.



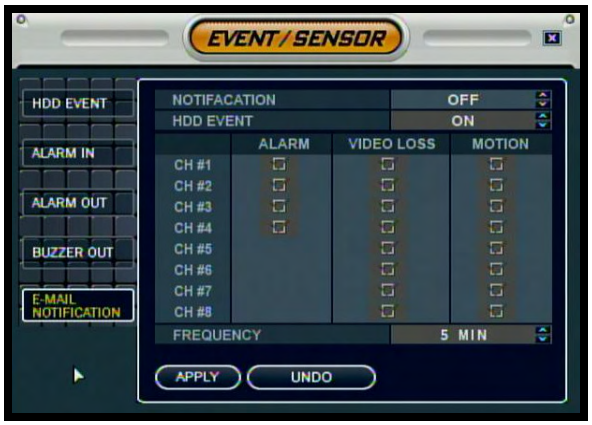
Troubleshooting the Email Feature

If you are having problems sending emails from the System, you may need to use a different port than specified in the Email Setup menu.

If this port is changed, then the new port will need to be forwarded on your Network Router. Please refer to the Port Forwarding section of the manual for details, or contact Technical Support.

Event / Sensor - E-Mail Notification

Navigate to the System Menu, and select the Mail Option.



- **NOTIFICATION** - Notification must be turned on for Automatic E-mail alerts to be sent.
- **HDD EVENT** - Emails a notification to all active accounts when problems are detected with the Hard Drive.
- **ALARM / VIDEO LOSS / MOTION** - Select the type of event for which you wish to trigger email notification: Alarm, Video Loss or Motion Detection (for each channel).
- **FREQUENCY** - Set the frequency to receive mails for the duration of the event.

NOTE: The Notification Email will only alert you to the fact that an event has occurred. No video or still footage will be sent.

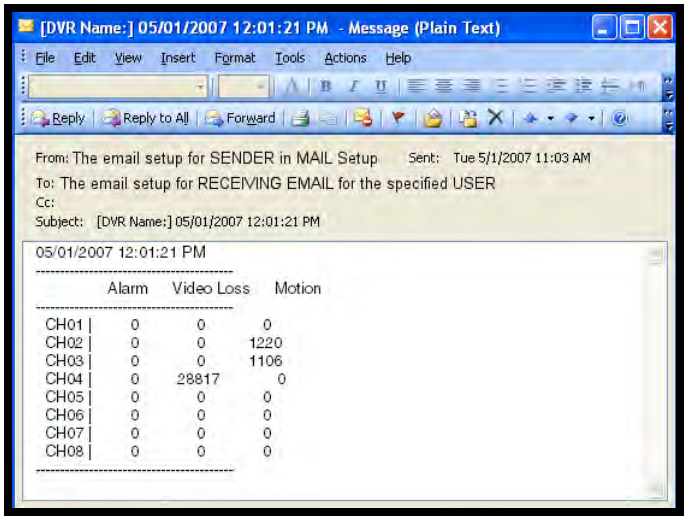
Reading Received Emails

When a specified event occurs on the system, the following is received in Email.

The E-Mail message indicates:

- The Date and Time that the Event occurred
- The Event Type.
- The Channel where the event occurred.

NOTE: The numbers in the email refer to internal system information, and are not indicative of any specific details.


[DVR Name:] 05/01/2007 12:01:21 PM - Message (Plain Text)
File Edit View Insert Format Tools Actions Help
Reply Reply to All Forward
From: The email setup for SENDER in MAIL Setup
Sent: Tue 5/1/2007 11:03 AM
To: The email setup for RECEIVING EMAIL for the specified USER
Cc:
Subject: [DVR Name:] 05/01/2007 12:01:21 PM
05/01/2007 12:01:21 PM
Alarm Video Loss Motion
CH01 | 0 0 0
CH02 | 0 0 1220
CH03 | 0 0 1106
CH04 | 0 28817 0
CH05 | 0 0 0
CH06 | 0 0 0
CH07 | 0 0 0
CH08 | 0 0 0

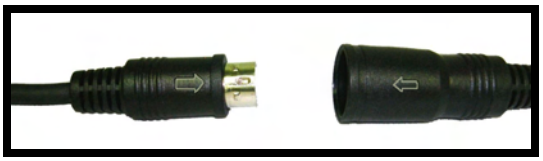
Recommended Tips for System Setup - Appendix #5

There are several tips outlined below that will assist you in setting up your system:

Connecting and Mounting Cameras:

1. Connect the DIN Extension Cable to an open channel port on the back of the System. Make sure that the ARROW on the cable is pointing up. This will align the pins on the cable correctly with the port on the stem, preventing the pins from becoming bent and the cable from becoming inoperable.

2. Connect one of the provided Cameras to the DIN Extension cable. Confirm that the arrows on the DIN Camera Cable and the DIN Extension cable are pointed together when connecting the cable. If the pins in the DIN Cable are bent, the Camera will NOT function

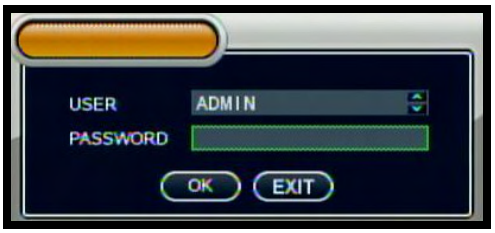


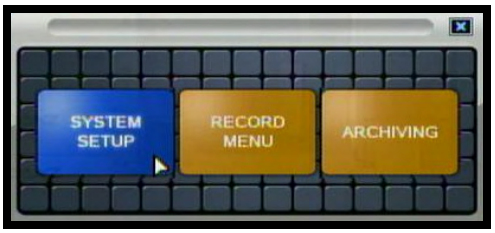
3. Mount the camera to the desired surface (ceiling, wall, shelf, etc.). Connecting the cables BEFORE permanently mounting the stand will help prevent issues with cable length (camera is mounted too far from the system and cannot be connected).

4. Aim the camera at the desired location. Remember to **REMOVE THE PROTECTIVE FILM** from the lens of the camera by pulling on the plastic tab.

Navigating within the System Menu

- Enter the **MENU** screen by pressing the **MENU** button. Enter the password (if required), and select the SYSTEM SETUP option.
- The Setup Menu controls the System Settings, Recording Settings and Archive.
- Scroll through the options by pressing the **UP**, **DOWN**, **LEFT and RIGHT** buttons on the Front Panel or Remote Control.
- To enter a sub-menu, navigate to the option and press the **ENTER** button. To exit a **SUBMENU**, press the **RETURN** button.
- To exit the **MAIN MENU**, press the **RETURN** button.





Navigating within the System Menu (cont.)

Menu Navigation Controls

This System has been designed to use the Mouse or Remote Control as the primary modes of navigation and configuration for the system. The Front Panel buttons can also be used to access the menus and configure the system.

- Navigation Controls - Move Up/Down/Left/Right.
- Enter Button - Press this button to select and change the values in a menu option.

Virtual Keyboard Control

The Virtual Keyboard control becomes available when keyboard input is needed for entering information such as Names, Network Information, etc.

- Includes a~z, A~Z, 0~9 and Symbols.@#$%^&*()
- Navigate using the arrow keys on the Front Panel or Remote Control, or by clicking with the Mouse.
- Select the ENTER button once the setup is completed.

Active Option Indicator

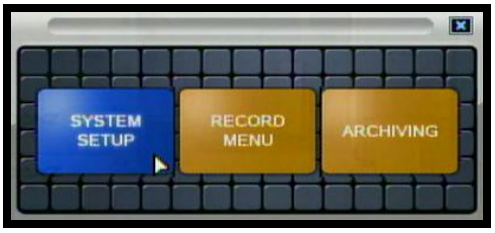
Orange Highlight - Indicates that the option is in active editing mode.

Green Highlight - Indicates that the option is available for editing. Once the option is highlighted, press the ENTER key to edit the option (highlights changes to Orange).

NOTE: Once changes have been made, select the APPLY button at the bottom of the screen, and press the ENTER button on the front panel or remote control. Changes will be saved at this time - exiting the menu without applying the changes will result in the changes being lost.

Changing the Date and Time

Setting the correct date and time for your system is important. Once the date and time have been set correctly, it is highly recommended that you format your Hard Drive.



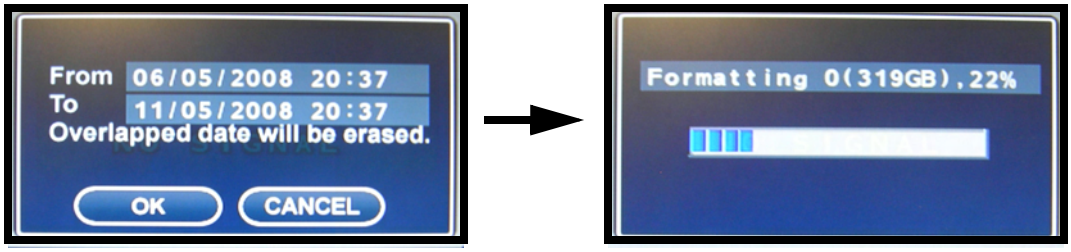
1. Enter MENU mode by pressing the MENU button on the front panel of the system, Remote Control or Mouse Menu. Select the SYSTEM SETUP Option.

2. Select the SYSTEM menu from the MAIN menu. Navigate using the up and down arrows on the front panel (or remote control). Highlight the selection in Green, and press the ENTER button to enter the SYSTEM Menu.

3. Select the DATE AND TIME Menu. Change the settings by navigating with the UP/DOWN/LEFT and RIGHT arrow keys. Set the following based on your local Time (and Timezone), and set the current date for the system.

- **Date/Time** - Sets the current system Date and Time.*
- **Date Format** - Sets the Date Display format (MM-DD-YYYY, YYYY-MM-DD, etc.).
- **Time Format** - Sets the Time Display format to either 12 or 24 hour display.
- **Network Time Server Setup** - Synchronizes the system to the specified remote time server. Select the **SYNC** button to connect to the remote server and synchronize the time. (may also use a time server of the users choice).
- **Timezone Setup** - Selections for the local Time Zone (i.e. EST, CST, PST). The **DST** (Daylight Savings Time) can be set to ON/OFF.

*** NOTE: If the Date/TIme is set into the past, a message will appear warning that Overlapped date(s) will be erased.**
**** MAKE SURE THAT THE DATE AND TIME ARE SET PRIOR TO RECORDING! ****



Formatting the Hard Drive

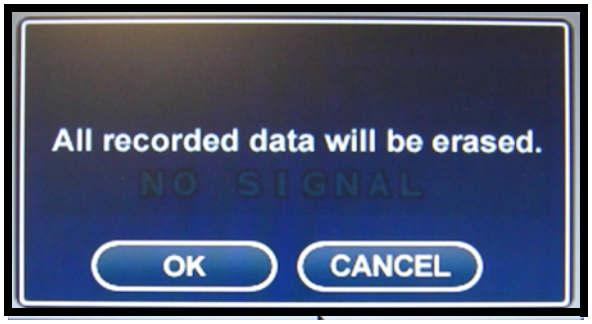
Formatting the hard drive after changing the date, and before beginning the recording of YOUR data is recommended, as the system is set to Automatically start recording when powered on (continuous recording setting).

NOTE: Formatting the Hard Drive will erase any previously recorded data. This will NOT affect your system configurations.

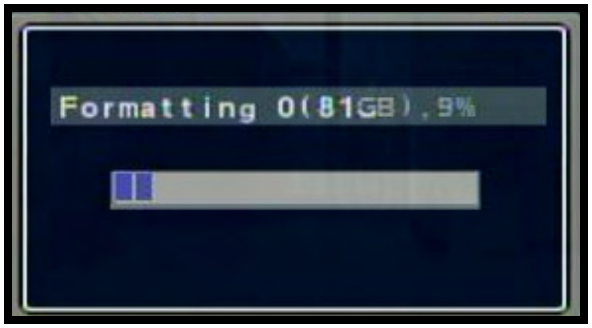
1. Enter MENU mode by pressing the MENU button on the front panel of the system, on the Remote Control or Mouse Menu. Select the SYSTEM SETUP Option.

2. Select the DISK MANAGEMENT menu from the MAIN menu. Navigate using the up and down arrows on the front panel (or remote control). Highlight the selection in Green, and press the ENTER button to enter the DISK MANAGEMENT Menu.

3. Navigate to the Format Option, and select the Start button.



- Once OK is selected, the user will be prompted to enter the **ADMIN PASSWORD.** Once the password is accepted, all Hard Drive data will be erased.
- A warning message will be displayed with the prompt 'All Recorded Data will be erased.'
- Select OK to erase the data, or CANCEL to return without erasing the Hard Drive.



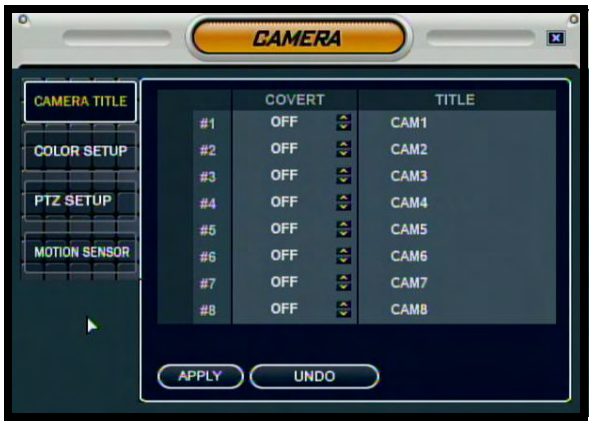
Formatting Status Indicator Window: Once the format is complete, the system will return to the Disk Manage Menu.

Camera Setup

Each camera should be assigned a name that corresponds to its use (i.e. Dock1, BackDoor, Cash3, etc.). This name is displayed onscreen, and helps to identify the camera location easily.

1. Enter MENU mode by pressing the MENU button on the front panel of the system, Remote Control or mouse menu. Select the SYSTEM SETUP Option.

2. Select the CAMERA menu from the MAIN menu. Navigate using the up and down arrows on the front panel (or remote control). Highlight the selection in Green, and press the ENTER button to enter the CAMERA Menu.



3. Select the CAMERA TITLE Menu. Change the settings by navigating with the UP/DOWN/LEFT and RIGHT arrow keys.

   - **CAM #** - Indicates the Camera Number (corresponds to the DIN/BNC connection port on the back of the system).

   - **Covert** - Turns the onscreen display of the Camera ON/OFF. Covert Cameras continue to record, however the camera is not displayed onscreen. This feature is commonly used in situations where the Monitor is located in a public area, and a camera should not be displayed (i.e. Located in a Cash Count room, or directed at a Cash Register).

   - **Title** - Sets the name for the individual camera (0~9, A~Z) up to # characters, by using the Virtual Keyboard:
     - **Virtual Keyboard** - Appears when the Camera Title change is selected. Navigate with the arrow keys, and press ENTER to select a Number or Letter.
     - **APPLY** - Saves the Title change.
     - **PREVIOUS** - Moves to the previous camera in the list

Screen Saver Settings

The screen saver will black the screen during a defined interval.

1. Enter MENU mode by pressing the MENU button on the front panel of the system, Remote Control or Mouse Menu. Select the SYSTEM SETUP Option.

2. Select the DISPLAY menu from the MAIN menu. Navigate using the up and down arrows on the front panel (or remote control). Highlight the selection in Green, and press the ENTER button to enter the DISPLAY Menu.

3. Select the SCREENSAVER Menu. Change the settings by navigating with the UP/DOWN/LEFT and RIGHT arrow keys. Set the screen saver options:

- **Auto Brightness** - Sets the length of time before the Screen brightness is turned down (up to # minutes).

NOTE: The unit continues to function, and pressing any key will turn the screen back on.

- **Main Display OFF** - Turns the Main Display Screen ON/OFF/TIMED:
  - **ON** - The Main Display is always ON
  - **OFF** - The Main Display is always OFF

- **FROM** - Used ONLY when the Main Display OFF setting is set to ON. Sets the Start Time for the monitor to go into Screen Saver mode.

- **TO -** Used ONLY when the Main Display OFF setting is set to ON. Sets the End Time for the monitor to exit from Screen Saver mode.

Backing up your System Configurations

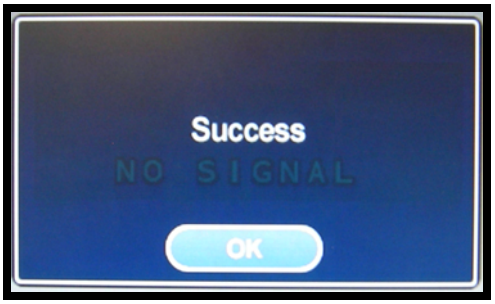
it is recommended to back up your system configurations to a Memory Stick. Configuring your system to meet your specific needs can be time consuming - having a backup of your settings will allow you to reset your unit with your personalized settings in the event of an unwanted change.

1. Enter MENU mode by pressing the MENU button on the front panel of the system, remote control or mouse menu. Select the SYSTEM SETUP Option.

2. Select the SYSTEM MANAGEMENT menu from the MAIN menu. Navigate using the up and down arrows on the front panel (or remote control). Highlight the selection in Green, and press the ENTER button to enter the SYSTEM MANAGEMENT Menu.

3. Navigate to the System Data option - the System settings can be saved to a USB memory stick:

   - Insert the Memory stick into the System and select the Save option to save settings:
     - A Success message indicates that the backup was completed.
     - If the device is not detected, a message will indicate that No storage device was found.
   - To load your User Settings, Insert the Memory stick into the System and select the Load option to restore settings.
   - System Backup is recommended after initial setup and installation is complete.



NOTE: Make sure to store your USB Memory stick in a safe place.

TIP: The USB Backup is an effective way to configure multiple systems. Using the backup file, you can make sure that all systems are configured in the same way at all locations.

Listen-in Audio - Appendix #6

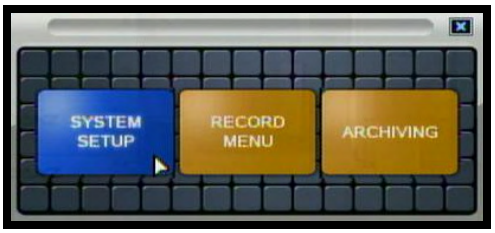
There are 4 available DIN camera ports, 8 available BNC camera ports and 4 BNC Audio ports on the system - how many can be used for Listen-In audio, and how many can be used to record sound?

How do I enable Listen-In Audio, and how do I set the Listen-in channel?

Listen-In Audio is the ability to listen to live audio on ONE channel at a time, between channels 1~4. To listen to live audio on a channel:

1. Enter MENU mode by pressing the MENU button on the front panel of the system (or on the Remote Control). Select the SYSTEM SETUP Option.

2. Select the SOUND menu from the MAIN menu. Navigate using the up and down arrows on the front panel (or remote control). Highlight the selection in Green, and press the ENTER button to enter the SOUND Menu.



3. Select the AUDIO Option. Navigate using the up and down arrows, and press the ENTER key to select the AUDIO Option:

   - **Live Audio** - Turns Live System Audio (from the Audio on the terminal) to ON/OFF.
   - **Audio Monitoring Channel** - Select the channel for Listen-in Audio (Channels 1~4 ONLY).

NOTE: Once the LIVE AUDIO Feature has been set to ON, the Remote Control can be used to select the Listen-In Audio Channel. Press the AUDIO button on the Remote Control to switch between Channels 1~4.

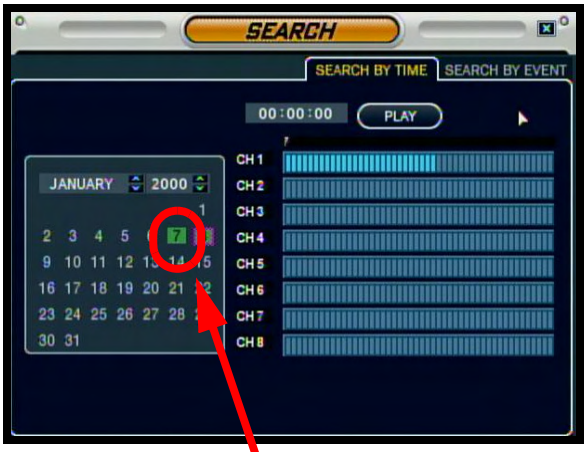
Playback Previously Recorded Data? - Appendix #7

Search mode allows you to locate previously recorded video by Date and Time, or by Event Type.

- Press the Search Button on the front panel, Remote Control or mouse menu. Enter the User Name and Password (if required).
- Use the Left / Right arrows on the Front Panel or Remote Control to switch between the Search By Time and Search By Event screens.

Search By Time

Searches the system based on date and time.



- Press the Enter button to access the Calendar (on the left side of the screen)
- Navigate within the calendar using the Arrow Keys on the front panel or remote control.
- Once the date has been located, press the Enter button to accept the date, and to access the Time Search (on the right side of the screen).
- Press and Hold the arrow keys to select the Time (increments of 1 minute). Pressing the button without holding will increment 15 minutes.
- Press the Enter button to start the playback. Press the Return button to stop playback and return to the Search By Time screen.

Any days highlighted with GREEN indicate that there is recorded video data.

The Date and Time will be displayed at the bottom of the screen. A playback icon will appear indicating that the unit is in Playback mode.

NOTE: The unit will continue to record data while in Playback Mode.

Search By Event

Searches the system based on Event Type (Alarm, Motion, Continuous or System).

- Press the right arrow button on the front panel or remote control to access the Search By Event screen.
- Select From and To dates, Events (Alarm, Continuous, Motion and Other) and Cameras
- Navigate within the options using the Arrow Keys on the front panel or remote control. Press the Enter button to select or deselect options (Note: Multiple event types can be selected).
- Navigate to the Start button at the bottom of the screen and press the Enter button. A listing of events will be displayed.
- Navigate to an event, and press the Enter button to start the playback. Press the Return button to stop the playback.and return to the Event Search screen.

Setting Auto-Recording to OFF - Appendix #8

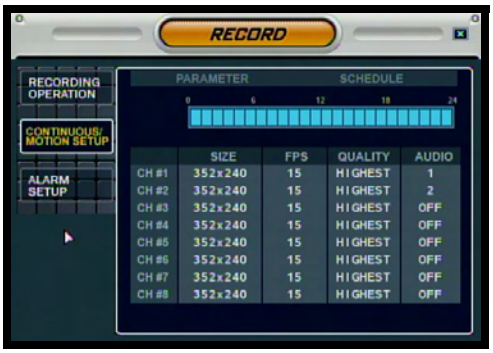
The system is set to automatically start recording when powered on. You may wish to change these settings to better suit your security needs. These settings can be changed for an individual camera on one time block, or can be set for multiple cameras for multiple time blocks.

Setting An Individual Time Block

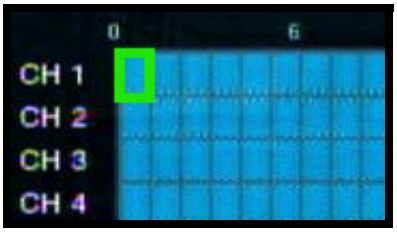
1. Enter MENU mode by pressing the MENU button on the front panel of the system, Remote Control or mouse menu. Select the RECORD MENU Option.

2. Select the SIMPLE RECORDING MODE menu. Navigate using the up and down arrows on the front panel (or remote control). Navigate using the arrow keys

3. Select the Channel Menu (highlights the area in PINK).



4. Press the ENTER key to enter the configuration mode. One time block will be highlighted in GREEN.



5. Navigate to the desired time block and press ENTER. The selected time block will be highlighted ORANGE.

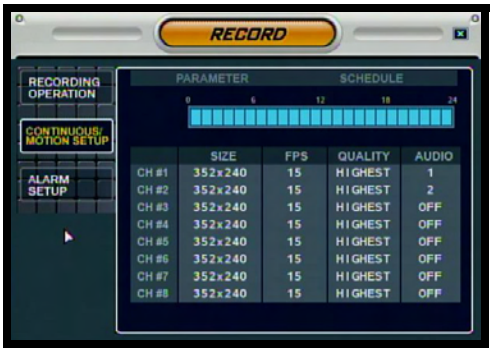
6. Press Enter once more to access the Configuration Menu. Select NONE, CONTINUOUS, MOTION or ALARM by pressing the UP and DOWN arrows. Press ENTER again to accept the change.

Setting Multiple Time Blocks

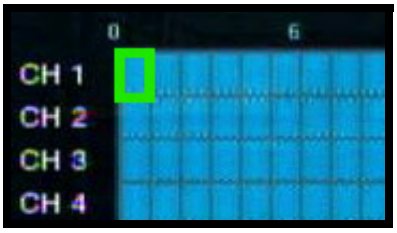
1. Enter MENU mode by pressing the MENU button on the front panel of the system, remote control or mouse menu. Select the RECORD MENU Option.

2. Select the SIMPLE RECORDING MODE menu. Navigate using the up and down arrows on the front panel (or remote control). Navigate using the arrow keys

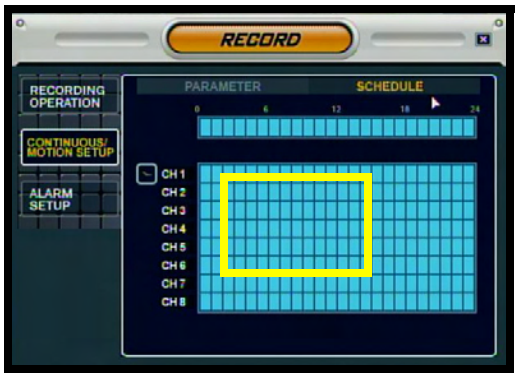
3. Select the Channel Menu (highlights the area in PINK).


RECORD
RECORDING OPERATION
CONTINUOUS/ MOTION SETUP
ALARM SETUP
PARAMETER
SCHEDULE
SIZE FPS QUALITY AUDIO
CH #1 352x240 15 HIGHEST 1
CH #2 352x240 15 HIGHEST 2
CH #3 352x240 15 HIGHEST OFF
CH #4 352x240 15 HIGHEST OFF
CH #5 352x240 15 HIGHEST OFF
CH #6 352x240 15 HIGHEST OFF
CH #7 352x240 15 HIGHEST OFF
CH #8 352x240 15 HIGHEST OFF

4. Press the ENTER key to enter the configuration mode. One time block will be highlighted in GREEN.



5. Navigate to the desired time block and press ENTER. The selected time block will be highlighted ORANGE. Press the UP, DOWN, LEFT and RIGHT Arrow keys to highlight multiple time blocks.



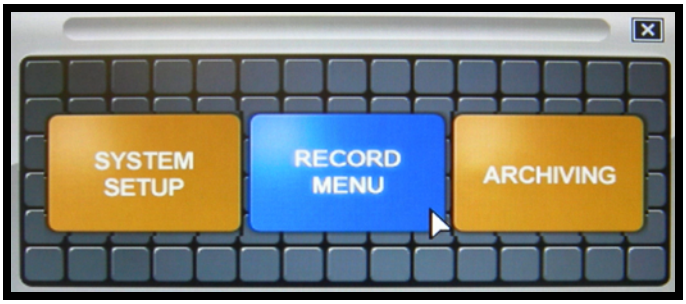
6. Press Enter once more to access the Configuration Menu. Select NONE, CONTINUOUS, MOTION or ALARM by pressing the UP and DOWN arrows. Press ENTER again to accept the change.

Setting up Motion Recording - Appendix #9

*The system is set to automatically start recording when powered on in Continuous Mode. You may wish to change these settings to better suit your security needs by having the cameras start recording when **MOTION** is detected. These settings can be changed for an individual cameras on one time block, or can be set for multiple cameras for multiple time blocks.*

1.Press the Setup button on the front panel of the unit -or- Press the Setup button on the Remote Control -or- Right Click and select SETUP.

2.Highlight the Record Menu and press the Enter button.

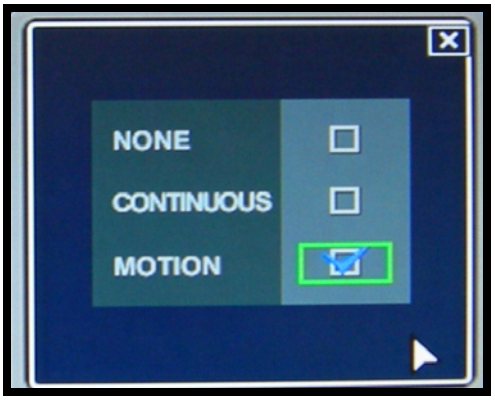


3.Select the Continuous/ Motion Setup Menu.

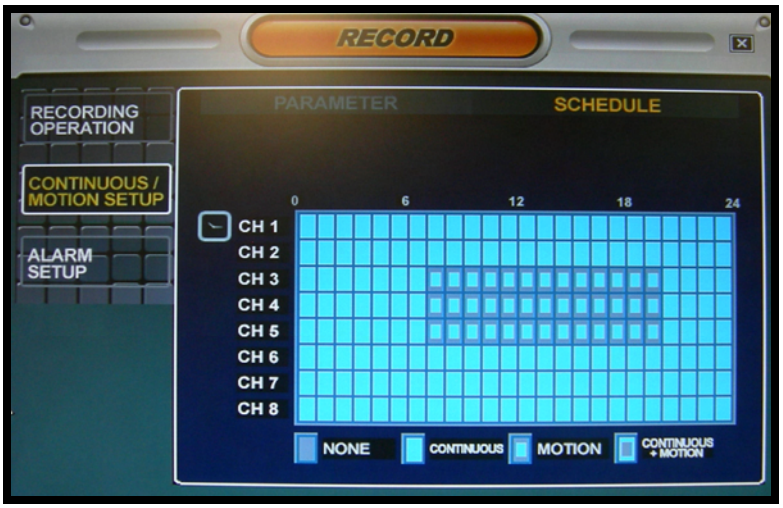
4.Select the Schedule Menu.

5.Select all desired Time Blocks. Once the blocks have been selected, an options box will appear. Set the selected time blocks to MOTION.

6. Press the Return Button or click the X to close the window.



7. The Schedule Window will be displayed, with the Motion Time blocks displayed as highlighted boxes.



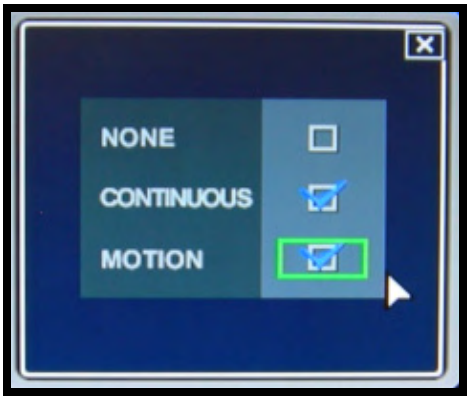
8. Press the Return Button several times to exit the Recording Menus. Remember to **SAVE YOUR CHANGES**!

To check if the unit is recording in Motion, all channels should have a green box on the top right hand corner. When motion is picked up it will change to a red box with a yellow M.

Continuous & Motion

This system has an Advanced Recording Feature where BOTH Continuous and Motion can be set to ON at the same time:

- The system will record continuously, but when motion is detected the system will display a **M** recording type on the relevant channel.
- The event will be logged as Motion in the system archive.
- This is useful in situations where you want to have continuous recording, but wish to have Motion detected for easier event searching.
- In addition, an e-mail notification can be sent when Motion has been detected.



Motion Area Setup

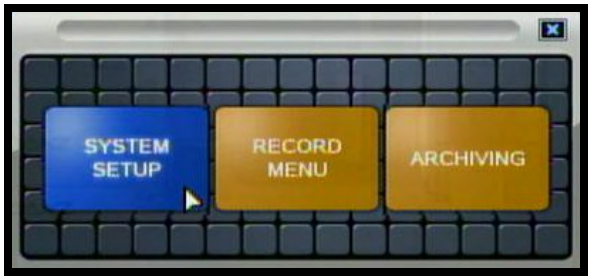
Use the System menu to configure the Motion Detection areas.

Setting the motion detection areas are useful to mask in specific areas (i.e. Doors or Windows), so when movement is detected in these areas the System Recording will begin.

The Motion Mask area can also be set to remove certain areas which you do not want to have detect motion, such as a heavy traffic area, or a piece of machinery which is in continuous motion.

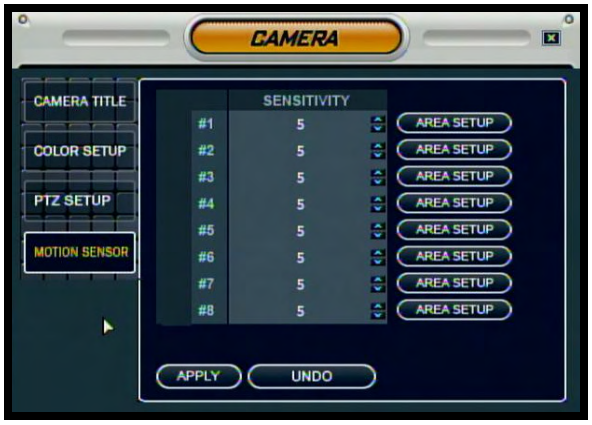
To change the Motion Detection Area:

- Select the **SYSTEM SETUP** option to configure the menu options.



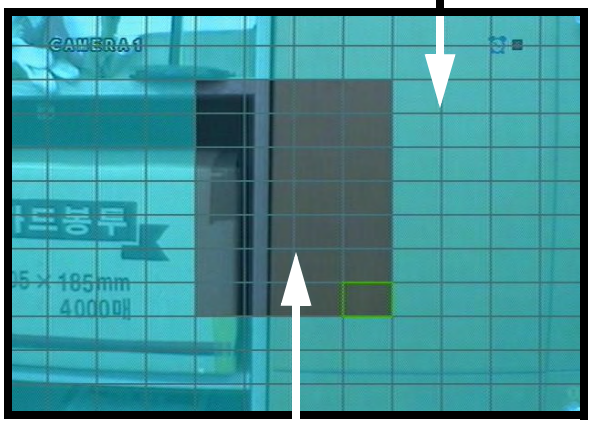
- Select the Camera Setup option:

- Select the Motion Sensor Menu:



- Click on the AREA SETUP for the desired Camera.
- Use the Mouse to select or deselect areas for motion detection

Selected Areas are shaded in BLUE.



Deselected Areas are shaded in GREY.

- Press the Return Button, or Right Click to exit. Select to Save Changes & Exit.

Using the Storage Calculator - Appendix #10

The Storage Calculator application is used to calculate the amount of recording time available on your Hard Drive, based on the System Recording Settings. This application is located on the Software Installation CD (provided with your System)

1. Select the settings to reflect the options you have chosen on your System:

CH1~CH8 - Select the channels to include in the Recording Calculation

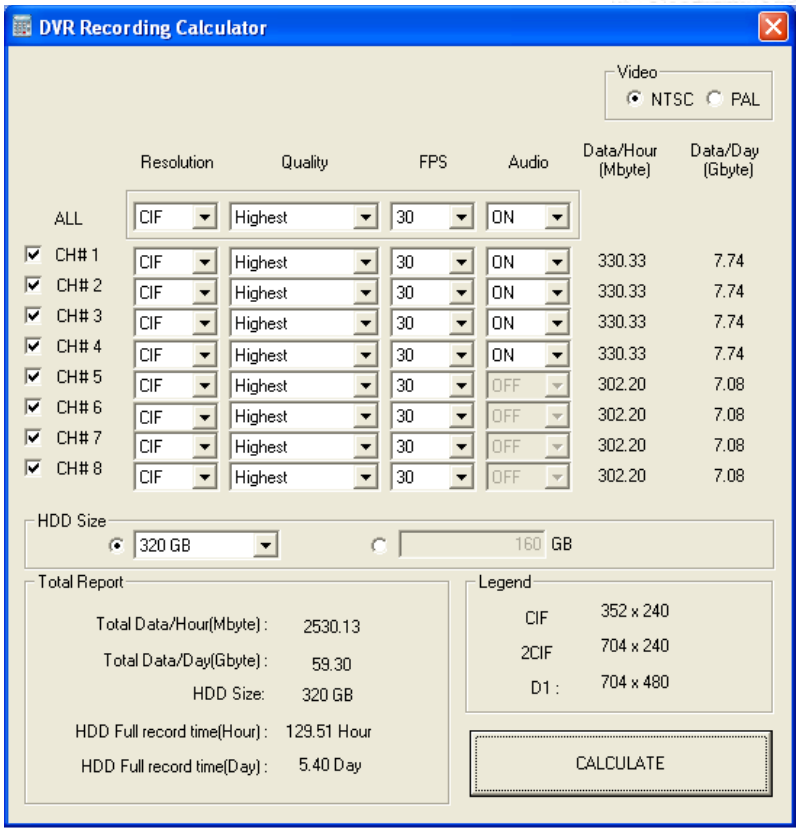
Resolution - Set the recording Resolution to CIF (352x240), 2CIF (704x240) or D1 (704x480)

Quality - Set the recording Quality to Low, Standard, High or Highest.

FPS - Set the Frames Per Second for the recording to 1, 2, 4, 8, 15 or 30 FPS.

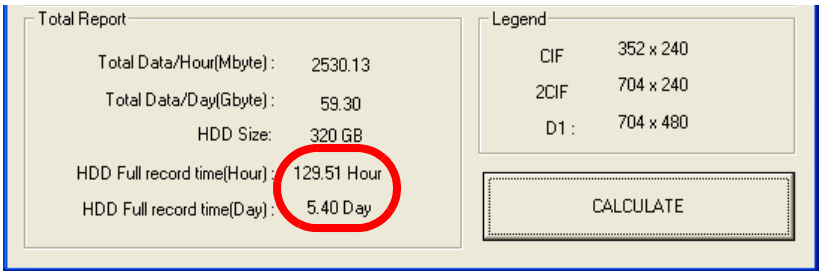
AUDIO - Set the Audio Recording selection to ON or OFF (if audio is being recorded on the system).

HDD Size - Select the size of the System Hard Drive (160 GB installed HDD is included with this System).



Main Screen - The Software loads with the following defaults selected. Use the dropdown selections to change the options to reflect your System settings.

2. Press the CALCULATE button. The Software will use all configurations to provide recording data specific to your System.



Example of Recording Time Calculations

Hard Drive Replacement - Appendix #11

The System comes with a pre-installed Hard Drive, however the unit will work with a replacement single Hard Drive (up to 750GB).

NOTE: Make sure that the System is OFF and the power cable has been disconnected before changing the Hard Drive.

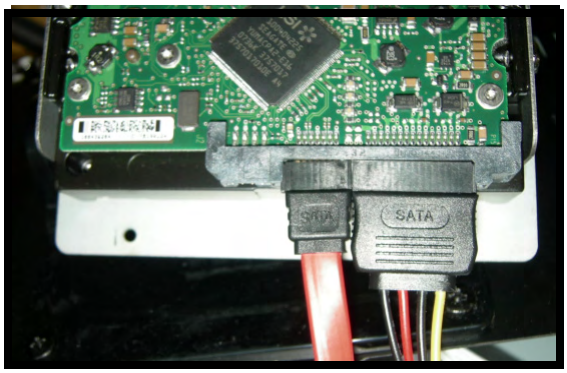
Setting the New Drive to Master

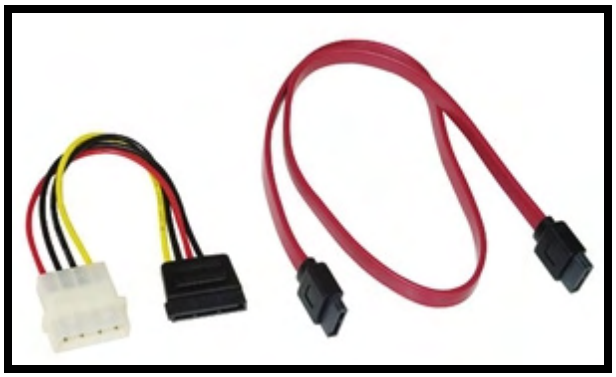
- Refer to the General Jumper Pin Setting on HDD Surface (generally located on a sticker on the top of the drive).
- Set the Jumper Pin Set to Master (1 Drive).

Warning : It is recommended to use either the SATA power connector or the Legacy power connector
Using both the SATA power connector and Legacy power connector may cause unpredictable results

Connecting the SATA Cable

- Confirm the SATA Cable is securely connected within the System.
- Connect the SATA Data Cable to the Drive
- Connect the SATA Power Cable to the Drive.



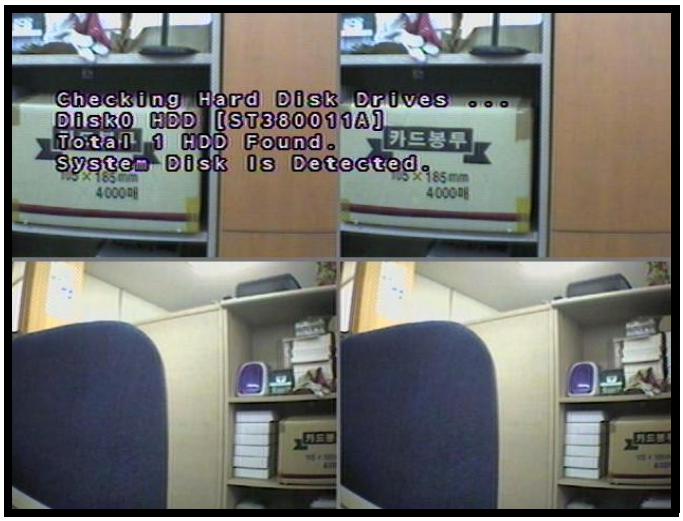


New Hard Drive Format

The New Hard Drive MUST be formatted.

If a new **HARD DRIVE** is detected, the system will prompt you to FORMAT the drive. If you do not choose to format the HARD DRIVE, the drive will not be detected by the system.

If you choose to FORMAT a drive in this way, the drive will no longer be readable by a regular PC without using the **HARD DRIVE VIEWER** software included on the CD provided with this unit.



NOTE: Do NOT turn off the System while the drive is formatting. This can cause problems with the Hard Drive.

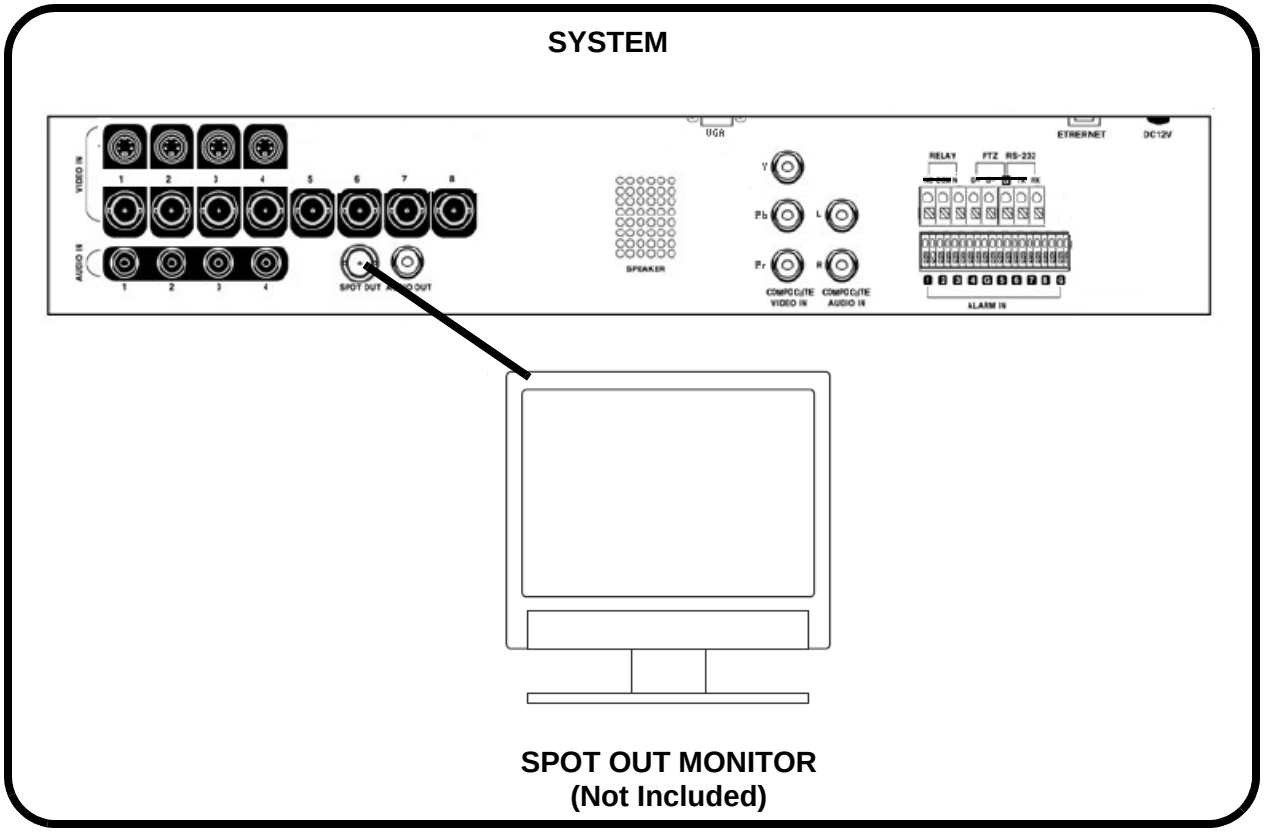
The installation video is included with the Hard Drive that was pre installed with the System. If you change the hard drive, the installation video will not longer work. You can view the Installation Video using the included Software CD, or online at http://www.lorexcctv.com/support in the Installation Guide section.

Connecting a Spot-Out Monitor - Appendix #12

A connection to a Spot-Out Monitor (not included with the System) can be made through the SPOT OUT Port on the back of the System.

- **SPOT OUT** - Displays Cameras in Sequence mode, regardless of the display on the DVR (i.e Camera Views, Menus, Playback, etc.) to a TV or VCR.
- Configure the Spot Out settings using the System Menu controls (when in DVR Mode).

This feature is used for situations in which you want to have the system in a back room while still displaying images to the public eye, for theft deterrence or advertising purposes.



Connecting Motion / Alarm Device - Appendix #13

Motion detection and Alarm controls are enabled through the Menu system on the System. Additional motion sensor devices can be connected to the system (Motion Sensors, Door/ Window Sensors).

A motion detection or sensor unit can be used to send a signal to the System to begin camera viewing on the matching Video Channel (when enabled in the Menu).

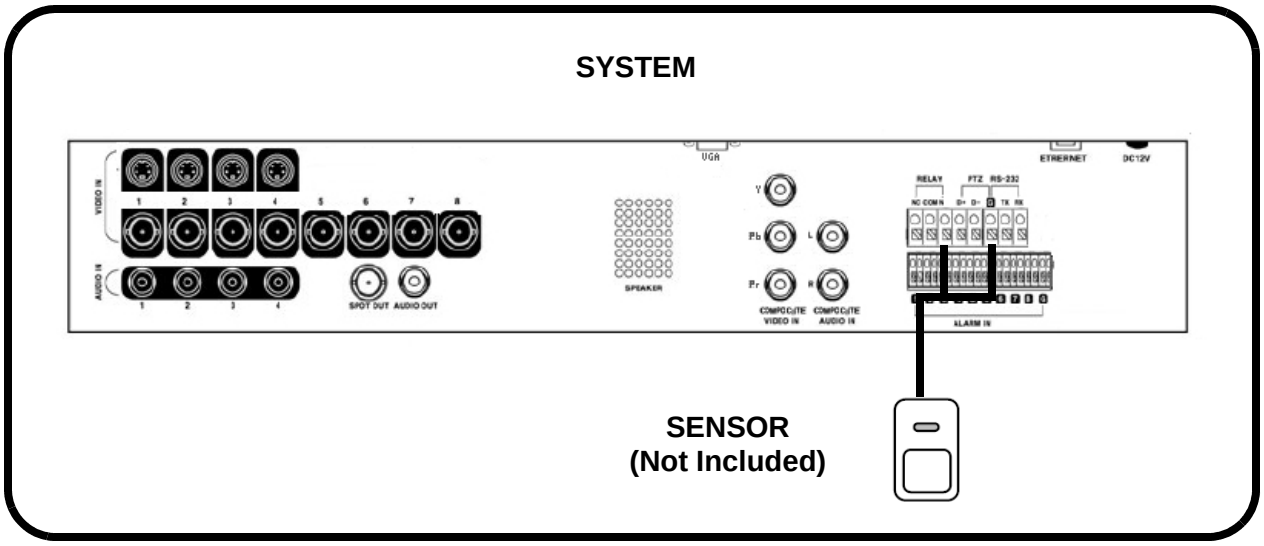
- Example: A Window sensor unit has been installed on Alarm Block port #4. When this sensor is activated, the camera on DIN or BNC VIDEO port #4 will become active (if enabled in the MENU on the System)

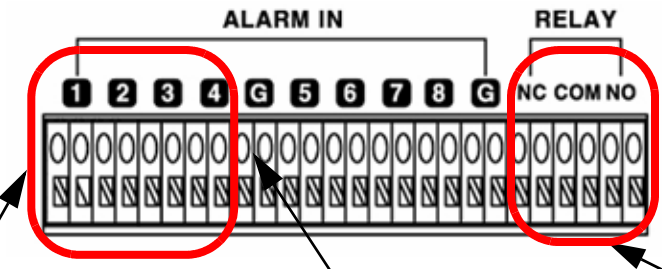
Installing a Sensor

1. Connect the GROUND Cable to the GND port on the Alarm Block on the System

2. Connect the SIGNAL Cable to a numbered port (1-8)

To start ALARM RECORDING on the System, configure the System Menu.





1-4 / 5-8: Alarm input terminals receive a signal from a device (i.e. Door or Window Sensor).

Ground

NO / NC: Alarm Output Terminals send a signal to another device when an alarm input is detected.

Connecting PTZ Cameras - Appendix #14

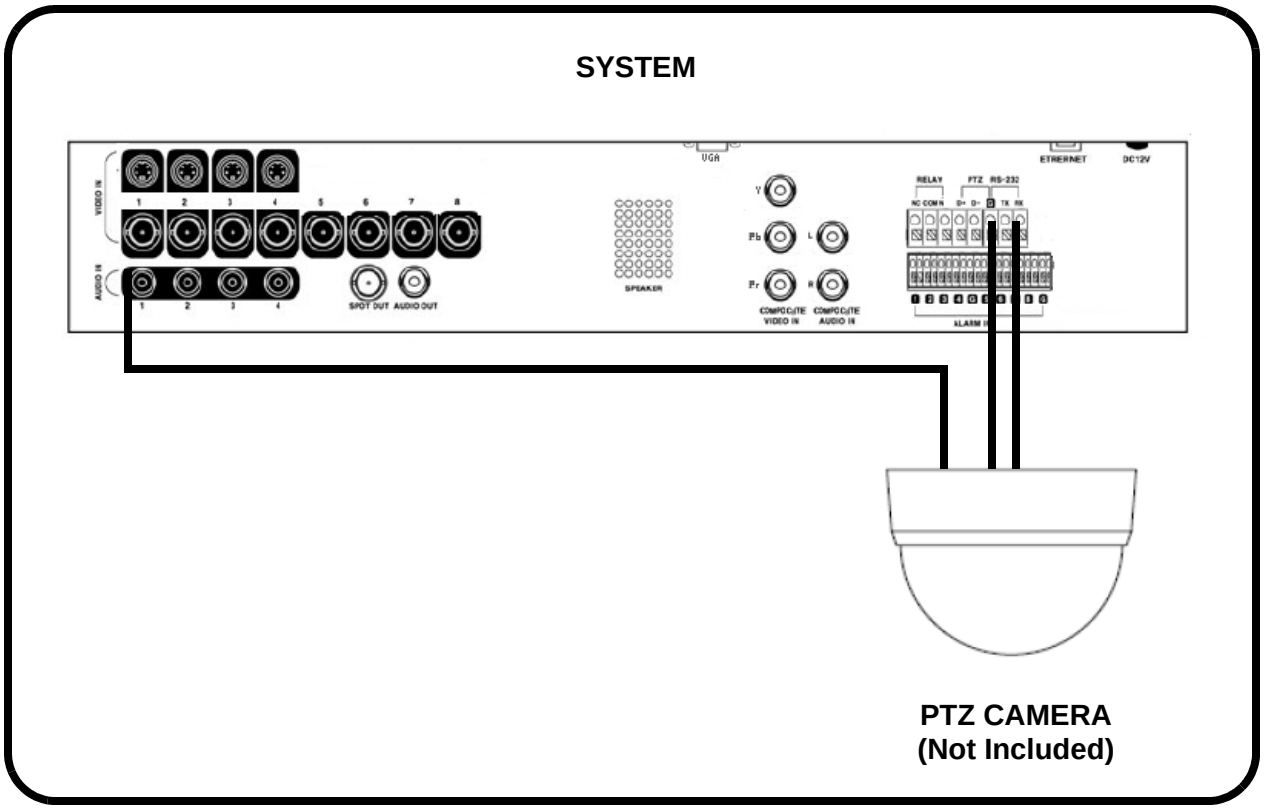
PTZ Cameras (not included with this system) can be connected to the PTZ Control Block on the back panel of the System. The PTZ Controls are enabled through the Menu system on the System. Additional PTZ Cameras are available at http://www.lorexcctv.com

Installing a PTZ (RS-485 Type) PTZ Camera:

1. Connect the Transmit Cable to the D+ port on the PTZ Control Block on the System.
2. Connect the Receive Cable to the D- port on the PTZ Control Block on the System.
3. Connect the Camera to a BNC Channel.
4. Configure PTZ Menu options. The PTZ Camera Settings will depend on the Type of Camera - refer to the specific Camera Manual for your brand and model of PTZ Camera.

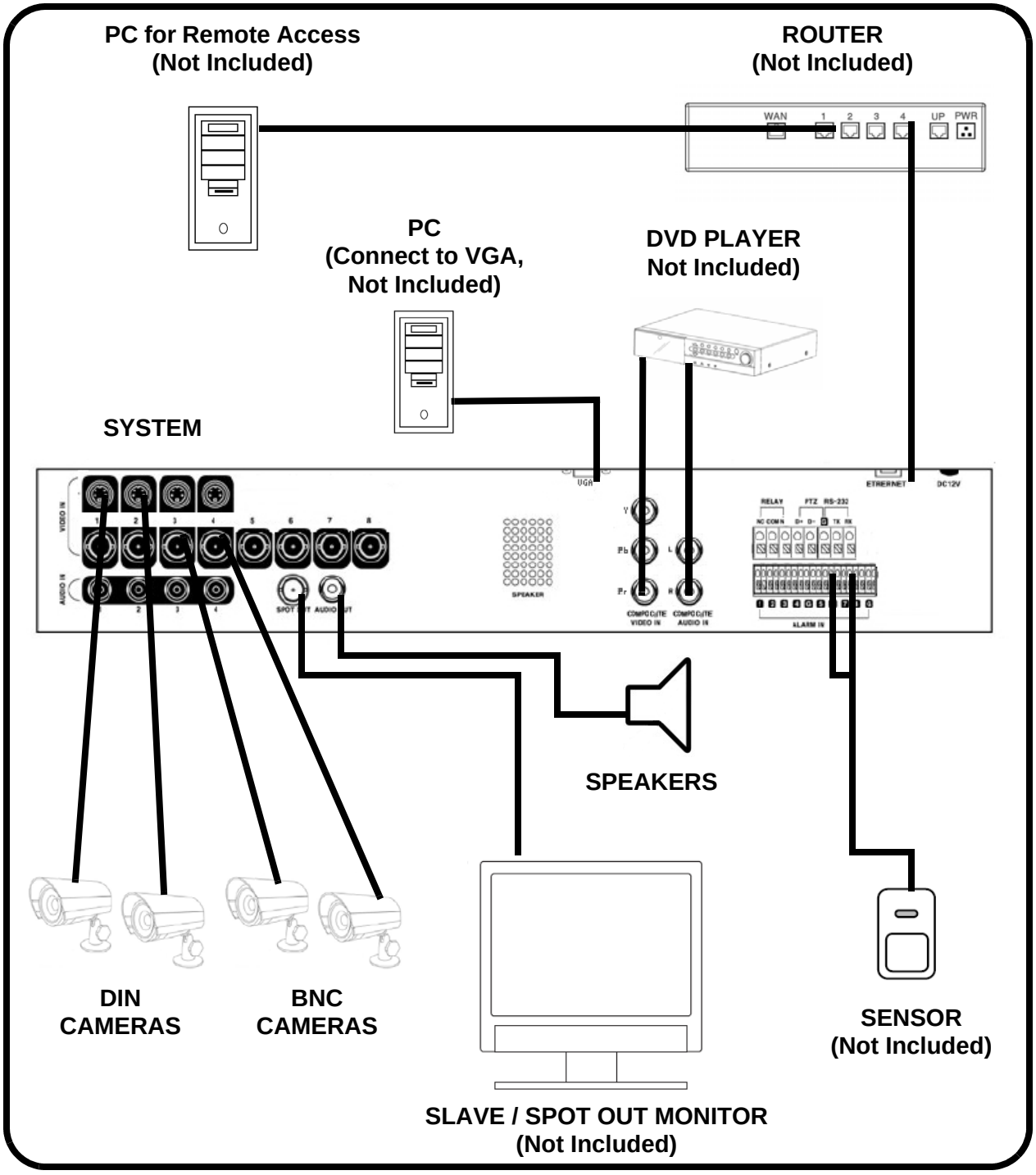
Installing a PTZ (RS-232 Type) PTZ Camera:

1. Connect the Transmit Cable to the TX port on the RS-232 Block on the System.
2. Connect the Receive Cable to the RX port on the RS-232 Block on the System.
3. Connect the Camera to a BNC Channel.
4. Configure PTZ Menu options. The PTZ Camera Settings will depend on the Type of Camera - refer to the specific Camera Manual for your brand and model of PTZ Camera.



Full Connectivity Diagram - Appendix #15

The following diagram outlines a general set of connections available with the System.



Optional Accessories

The following accessories are available to add to your existing system:

CVC6973HR

35ft/10m Night Vision
HIGH RESOLUTION COLOR BULLET CAMERA

12 IR LEDs provides effective night vision range of 35 ft

CVC6995HR

70ft/21m Night Vision
HIGH RESOLUTION COLOR BULLET CAMERA

30 IR LEDs provides effective night vision range of 70 ft

CVC6997HR

100ft/30m Night Vision
HIGH RESOLUTION COLOR BULLET CAMERA

23 Hi Intensity IR LEDs provides effective night vision range over 100 ft

SG7610B

30ft/10m Night Vision
HIGH RESOLUTION COLOR BULLET CAMERA

12 IR LEDs provides effective night vision range over 30 ft

TO ORDER THESE ITEMS, AND FOR A COMPLETE LISTING OF AVAILABLE PRODUCTS, PLEASE VISIT US ON THE WEB AT HTTP://WWW.LOREXCCTV.COM

It’s all on the web

- Product Information
- Specification Sheets
- User Manuals
- Software Upgrades
- Quick Start Guides
- Firmware Upgrades

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www.lorexcctv.com